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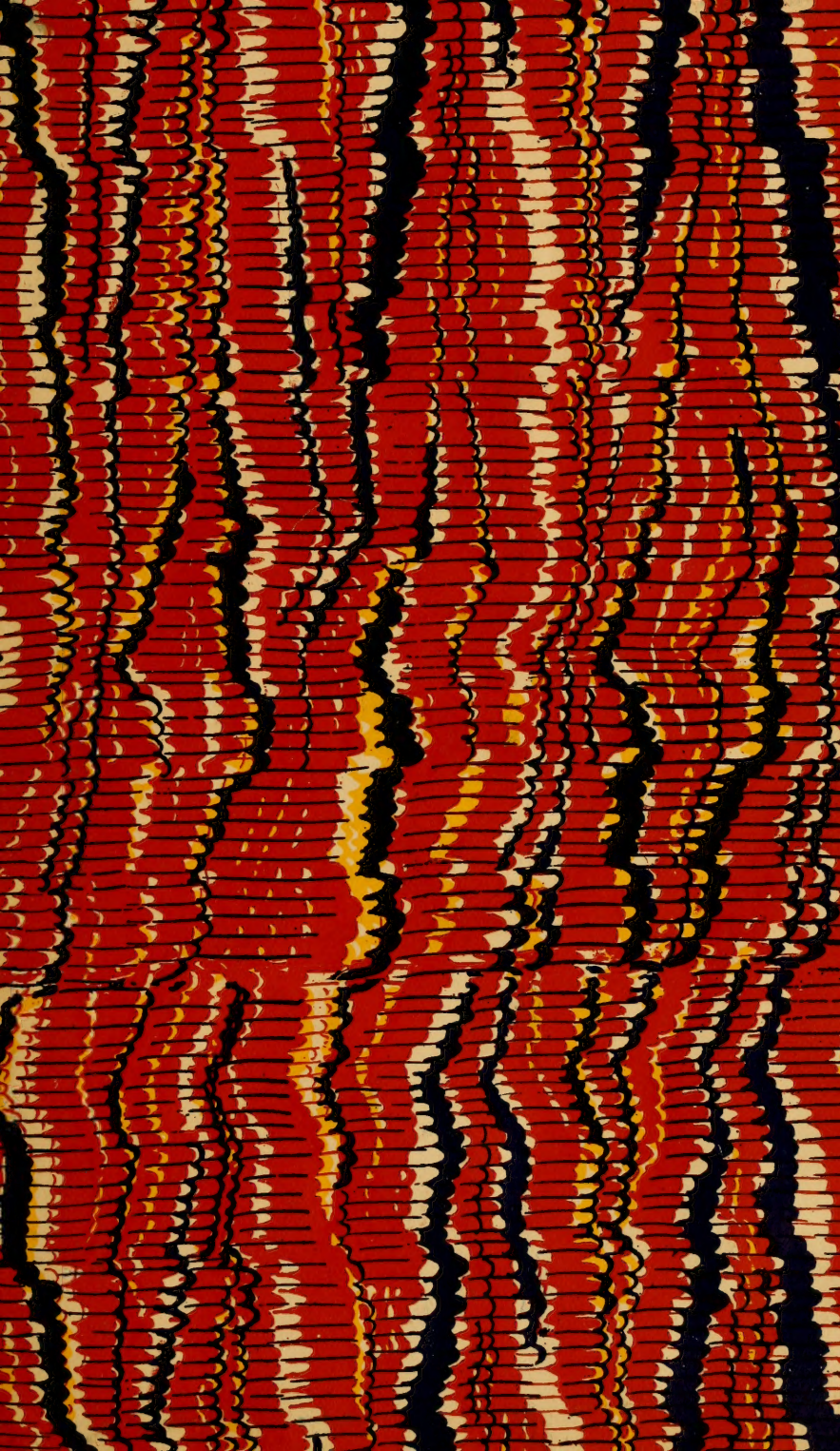

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Vermont Bird Club

BULLETIN NO. 1

MAY, 1906

PUBLISHED ANNUALLY

BY THE CLUB

Vermont Bird Club

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One copy of this Bulletin is sent to each member of the Club. Additional copies may be secured at eight cents each. Orders for these and other communications relative to the Bulletin should be addressed to G. H. Ross, Secretary Vermont Bird Club, Rutland, Vt.

INTRODUCTION.

The Vermont Bird Club has been in existence nearly five years. It was formed for the purpose of collecting and preserving information concerning the birds found within the state; of creating and encouraging an interest in birds; of promoting scientific investigations and of securing protection of all useful species. Since its organization the feeling has existed among the members that the proceedings of its meetings should be printed, thus giving them tangible and permanent form and allowing those who cannot attend the meetings regularly to keep in closer touch with the work of the Club. The final expression of this feeling was the authorization at the last winter meeting of the publication of an annual Bulletin. It is not the intention to publish a bird magazine, simply a condensed record of the proceedings of the meetings.

The Vermont Botanical Club will issue a similar bulletin and these are to be made of like form that those who wish may easily keep and bind them together.

A HISTORY OF THE VERMONT BIRD CLUB.

In July, 1901, at the annual field meeting of the Vermont Botanical Club a preliminary meeting was held at which steps were taken toward the formation of a State Bird Club. Previous to this there had been some discussion among members of the Botanical Club, who were also interested in birds, as to the advisability of forming such an organization. At this preliminary meeting a committee was appointed with Mr. Clifton D. Howe as chairman to formulate a constitution to be presented at a meeting to be held in conjunction with the annual winter meeting of the Botanical Club at Burlington the following January.

Thus on January 25, 1902, a constitution was adopted and an organization effected. Prof. G. H. Perkins was chosen president, J. B. Ham, vice president, and G. H. Ross, secretary and treasurer. In 1903 Carlton D. Howe was chosen vice president. Since that year these officers have been continuously reelected. An executive committee of three who are elected annually aid the officers in arranging meetings, programs, and in other activities of the Club.

At the January meetings officers are elected, other business transacted, and papers are read and discussed.

As many members of the Bird Club belong also to the Botanical Club, the annual meetings are held at the same time and the joint session of the two clubs is a most interesting feature. In arranging programs care

is taken that separate sessions of the clubs do not occur at the same hour. The winter meetings heretofore have been held in Burlington, but an invitation has been accepted to go to St. Johnsbury next year.

At the July meetings the Bird and Botanical Clubs again unite. Field notes are taken and a general good time is enjoyed.

Summer meetings have been held as follows: On Lake Champlain in 1902, at Arlington and Manchester in 1903, at Silver Lake and Lake Dunmore in 1904. At Lake Champlain and Burlington in 1905. It is planned to visit Mt. Mansfield next July. A report of the summer meeting is always given by some member of the Club at the next winter meeting.

In 1903 with the purpose of finally securing a correct list of Vermont birds, the practice was begun of sending to each member a migration blank upon which to record all species observed during the year. As the number who returned these blanks to the Secretary was disappointingly small, the method was changed somewhat. At present, migration blanks are sent annually to those members who have returned completed records of the previous year. However, the Secretary will gladly send copies to other members upon application.

The Club is also interested in bird protection and at the 1904 meeting a committee was appointed to confer with the State Fish and Game Commission to secure the passage of the A. O. U. Model Bird Law by the General Assembly.

In connection with the Vermont Audubon Society the Club will soon issue posters with the bird laws of the state printed thereon and warnings as to their infringement. Some of the posters will be printed in Italian for the enlightenment of those people who are such wholesale destroyers of our small birds.

Below are the titles of the more important papers read at the winter meetings of the Club. In 1902—Birds at My Home, Mrs. W. C. Horton, Brattleboro; Bird Ecology, Carlton D. Howe, Essex Junction; Work of the American Ornithologists' Union and Origin and Progress of Bird Protection in the United States, Mrs. E. B. Davenport, Brattleboro. In 1903—Birds of Mt. Mansfield, Mrs. E. B. Davenport, Brattleboro, (read in joint session); Nesting of the Golden Crowned Kinglet, G. H. Ross, Rutland; A Few Suggestions to the Members of the Vermont Bird Club, Carlton D. Howe. In 1904—Birds of Brandon, Rev. D. D. Chapin, Brandon; Bird Protection, A. C. Dike, Bristol; Identification of Birds by Their Songs, Miss I. M. Paddock, St. Johnsbury; Birds of Caspian Lake and Vicinity, Prof. J. W. Votey, Burlington; A. Tame Ruffed Grouse, C. D. Howe; Bird Study, an Attractive Element of Nature, Rev. H. E. Thayer, Ludlow; A Trip to the Farallone Islands, Mrs. E. B. Davenport (read in

joint session.) In 1905—Nesting of the Duck Hawk, W. A. Kent, Proctor; Birds of Rutland County, G. H. Ross; Some Warblers I Have Known, Miss Susan E. Clark, St. Johnsbury; An Owl Story, Mrs. E. H. Terry, Northhampton, Mass.; Additional Notes from Mt. Mansfield, Mrs. E. B. Davenport; The Work of the Audubon Societies, C. D. Howe (read in joint session). Abstracts of papers read in 1906 are given elsewhere in this bulletin.

THE FOURTH ANNUAL FIELD MEETING.

The fourth annual field meeting was held July 4 and 5, 1905. The members assembled at Burlington on the morning of July 4. The steamer Mariquita had been chartered for a cruise. Landings were made at Providence Island, Gordon's and Bow-and-Arrow Point. Pearl Bay was reached about 6 P. M. and the night spent at the hotel Island Villa. A business and social meeting was held that evening. As the lake was rough on July 5, the morning was given to exploring the neighborhood until train time when the party returned to Burlington by rail and spent the afternoon at Rock Point and along the beach of Burlington Bay.

FIFTH ANNUAL WINTER MEETING.

The fifth annual winter meeting was held at the University of Vermont Jan. 17-18, 1906. Papers were read during the forenoon and afternoon of January 17 and the forenoon of January 18. The annual supper occurred the first evening in the University Gymnasium. Following the pleasant custom of the past two years, this was a joint gathering of the Vermont Bird Club and the Vermont Botanical Club, and was arranged by the local members of the two, complimentary to the visiting members. Fifty-four were in attendance. Following the supper some business was transacted, and the annual roll call occupied the remainder of the evening. The responses to the roll call consisted of brief remarks, often in a reminiscent vein, or suggestions of club policies or possibilities.

It was voted to publish an annual bulletin, and the following were chosen as a committee on publication, representing jointly the Botanical and Bird Clubs; Ezra Brainerd, Mrs. E. B. Davenport, L. R. Jones, Mrs. Nellie F. Flynn, Miss Delia Griffin, G. H. Ross, C. D. Howe.

Miss Griffin extended an invitation on behalf of the St. Johnsbury members and the management of the Fairbanks Museum to the Clubs, to hold the next winter meeting at St. Johnsbury. This was accepted.

It was voted to hold the next field meeting about July first on Mt. Mansfield.

The Treasurer, G. H. Ross, reported a balance of $39.00 on hand.

A LIST OF BIRDS OBSERVED IN RUTLAND COUNTY, CHIEFLY BETWEEN THE YEARS 1888 AND 1906.

(Read at 1905 Meeting by G. H. Ross, Rutland.)

The list is deficient in water birds as few observations were made in the western part of the county which is bordered by Lake Champlain. The Otter Creek valley from Danby to Pittsford probably contains about all species found inhabiting the lower altitudes of Vermont. In the eastern end of the county, in Shrewsbury, Mendon and Sherburne there are three mountain peaks which have an altitude of 3,900 feet, so this county has most, if not all, the species found in the higher altitudes of the state. Thus, the birds of Rutland county are fairly typical of the birds of Vermont.

Podilymbus podiceps, Pied-billed Grebe. Migrant and summer resident.

Urinator imber, Loon. Migrant.

Uria troile, Murre. One specimen taken in East Wallingford late in the autumn, so exhausted it could not fly.

Anas obscura, Black Duck. Migrant and summer resident.

Aix sponsa, Wood Duck. Rare summer resident.

Branta canadensis, Canada Goose. Migrant.

Botaurus lentiginosus, American Bittern. Migrant and summer resident.

Ardea herodias, Great Blue Heron. Migrant and summer resident.

Ardea virescens, Little Green Heron. Migrant and summer resident.

Nycticorax nycticorax naevius, Black-crowned Night Heron. Migrant.

Porzana carolina, Virginia Rail. Migrant and summer resident.

Porzana noveboracensis, Yellow Rail. Migrant.

Gallinula galeata, Florida Gallinule. Summer resident, Lake Bomoseen.

Fulica americana, Coot. Migrant.

Philohela minor, American Woodcock. Migrant and summer resident.

Gallinago delicata, Wilson's Snipe. Migrant, occasionally winters near open springy spots.

Totanus melanoleucus, Greater Yellow Legs. Migrant.

Totanus solitarius, Solitary Sandpiper. Migrant.

Bartramia longicauda, Bartram's Sandpiper. Summer resident.

Actitis macularia, Spotted Sandpiper. Common summer resident.

Aegialitis vocifera, Killdeer. Migrant.

Colinus virginianus. Quail. There were a number here for several years, but none have been seen for five years. Probably descended from introduced birds.

Bonasa umbellus, Ruffed Grouse. Resident.

Bonasa umbellus togata, Canadian Ruffed Grouse. Resident, less common than preceding.

Ectopistes migratorius, Passenger Pigeon. Migrant. None seen since 1885.

Zenaidura macroura, Mourning Dove. Twice seen during the breeding season.

Circus hudsonius, Marsh Hawk. Summer resident.

Accipiter velox, Sharp-shinned Hawk. Summer resident.

Accipiter cooperi, Cooper's Hawk. Summer resident.

Accipiter atricapillus, American Goshawk. Chiefly winter visitant. Found nest with eggs in Mendon, Vt., 1905-1906.

Buteo borealis, Red-tailed Hawk. Resident. More common in the hill towns than in valleys.

Buteo lineatus, Red-shouldered Hawk. The common hawk of the valleys. Breeds.

Buteo latissimus, Broad-winged Hawk. Migrant and rare summer resident.

Haliaeetus leucocephalus, Bald Eagle. Formerly bred at Lake Bomoseen, Castleton.

Falco peregrinus anatum, Duck Hawk. Bred at Wallingford.

Falco columbarius, Pigeon Hawk. Migrant.

Falco sparverius, Sparrow Hawk. Summer resident.

Pandion haliaetus carolinensis, Fish Hawk. Migrant.

Strix pratincola, Barn Owl. One adult specimen shot in Danby in 1902.

Asio wilsonianus, Long-eared Owl. Resident.

Asio accipitrinus, Short-eared Owl. One specimen taken.

Syrnium nebulosum, Barred Owl. Resident.

Scotiaptex cinereum, Great Gray Owl. Rare winter visitant.

Nyctala acadica, Saw-whet Owl. Seen often in autumn. Breeds above 2000 feet elevation. Resident.

Megascops asio, Screech Owl. Resident.

Bubo virginianus, Great Horned Owl. Resident.

Nyctea nyctea, Snowy Owl. Winter visitant. A number taken this winter (1905-'06).

Coccyzus americanus, Yellow-billed Cuckoo. Summer resident. Much rarer than the next species.

Coccyzus erythropthalmus, Black-billed Cuckoo. Summer resident.

Ceryle alcyon, Belted Kingfisher. Summer resident.

Dryobates villosus, Hairy Woodpecker. Resident.

Picoides arcticus. Arctic Three-toed Woodpecker. Winter visitant. One nesting record, Pico Peak, Sherburne.

Picoides americanus, American Three-toed Woodpecker. Winter vistant. Have seen it in summer on Pico Peak.

Sphyrapicus varius, Yellow-bellied Sapsucker. Summer resident.

Ceophloeus pileatus, Pileated Woodpecker. Resident. Several breeding records.

Melanerpes erythrocephalus, Red-headed Woodpecker. Summer resident. Found in small maple groves chiefly.

Colaptes auratus, Golden-winged Woodpecker. Summer resident.

Antrostomus vociferus, Whippoorwill. Summer resident.

Chordeiles virginianus, Nighthawk. Summer resident.

Chaetura pelagica, Chimney Swift. Summer resident.

Trochilus colubris, Ruby-throated Hummingbird. Summer resident.

Tyrannus tyrannus, Kingbird. Summer resident.

Myiarchus crinitus, Crested Flycatcher. Summer resident.

Sayornis phoebe, Phoebe. Summer resident.

Contopus borealis, Olive-sided Flycatcher. Summer resident. Chiefly around the mountain ponds.

Contopus virens, Wood Pewee. Summer resident.

Empidonax trailli, Traill's Flycatcher. Summer resident.

Empidonax minimus, Least Flycatcher. Summer resident.

Otocoris alpestris, Horned Lark. Winter visitant.

Octocoris alpestris praticola, Prairie Horned Lark. Summer resident. Two nests found in 1905.

Cyanocitta cristata, Blue Jay. Resident.

Corvus americanus, Crow. Resident.

Dolichonyx oryzivorus, Bobolink. Summer resident.

Molothrus ater, Cowbird. Summer resident.

Agelaius phoeniceus, Red-winged Blackbird. Summer resident.

Sturnella Magna, Meadow Lark. Summer resident.

Icturus galbula, Baltimore Oriole. Summer resident.

Scolecophagus carolinus, Rusty Blackbird. Migrant.

Quiscalus quiscula aeneus. Bronzed Grackle. Summer resident.

Pinicola enucleator, Pine Grosbeak. Winter visitant.

Carpodacus purpureus, Purple Finch. Summer resident.

Loxia curvirostra minor, American Crossbill. Winter visitant.

Loxia leucoptera, White-winged Crossbill. Winter visitant. Much rarer than preceding.

Acanthis linaria, Redpoll. Winter visitant.

Spinus tristis, American Goldfinch. Resident.

Spinus pinus, Pine Siskin. Winter visitant.

Plectrophenax nivalis, Snow Bunting. Winter visitant.

Calcarius lapponicus, Lapland Longspur. Winter visitant. With flocks of snow buntings.

Poocaetes gramineus, Vesper Sparrow. Summer resident.

Ammodramus sandwichensis savanna, Savanna Sparrow. Summer resident.

Zenotrichia leucophrys, White-crowned Sparrow. Migrant.

Zanotrichia albicollis, White-throated Sparrow. Common above 1,500 feet elevation. Summer resident.

Spizella monticola, Tree Sparrow. Winter visitant.

Spizella socialis, Chipping Sparrow. Summer resident.

Spizella pusilla, Field Sparrow. Summer resident.

Junco hyemalis, Junco, Snowbird. Summer resident, above 1,000 feet elevation.

Melospiza fasciata, Song Sparrow. Summer resident.

Melospiza lincolni, Lincoln's Sparrow. Migrant.

Melospiza georgiana, Swamp Sparrow. Summer resident.

Passerella iliaca, Fox Sparrow. Fall migrant.

Passer domestics, English Sparrow. Resident. Introduced species.

Pipilo erythrophthalmus, Towhee. Summer resident.

Habia ludoviciana, Rose-breasted grosbeak. Summer resident.

Passerina cyanea, Indigo Bunting. Summer resident.

Piranga erythromelas, Scarlet Tanager. Summer resident.

Progne subis, Purple Martin. Summer resident.

Petrochelidon lunifrons, Cliff Swallow. Summer resident.

Chelidon erythrogaster, Barn Swallow. Summer resident.

Tachycineta bicolor, Tree Swallow. Summer resident.

Clivicola riparia, Bank Swallow. Summer resident.

Stelgidopteryx serripennis, Rough-winged Swallow. One specimen taken during breeding season.

Ampelis cedrorum, Cedar Bird. Summer resident.

Lanius borealis, Northern Shrike. Winter visitant.

Lanius ludovicianus, Loggerhead Shrike. Summer resident.

Vireo olivaceus, Red-eyed Vireo. Summer resident.

Vireo gilvus, Warbling Vireo. Summer resident.

Vireo flavifrons, Yellow-throated Vireo. Less common than preceding.

Vireo solitarius, Solitary Vireo. Summer resident.

Mniotilta varia, Black and White Warbler. Summer resident.

Helminthophila ruficapilla, Nashville Warbler. Summer resident.

Helminthophila peregrina, Tennessee Warbler. Two pair noted in Mt. Holly, June 1897, at an elevation of over 2,000 feet.

Compsothlypis americana, Parula Warbler. Summer resident.

Dendroica tigrina, Cape May Warbler. Migrant. In 1888 observed parents feeding young on Mt. Killington, Sherburne.

Dendroica aestiva, Summer Warbler. Summer resident. Confined chiefly to the valleys.

Dendroica caerulescens, Black-throated Blue Warbler. Summer resident.

Dendroica coronata, Myrtle Warbler. Migrant, and summer resident above 1,800 feet elevation.

Dendroica maculosa, Magnolia Warbler. Summer resident.

Dendroica pennsylvanica, Chestnut-sided Warbler. Summer resident.

Dendroica castanea, Bay-breasted Warbler. Migrant.

Dendroica striata, Black-poll Warbler. Migrant, and summer resident above 2,000 feet elevation.

Dendroica blackburniae, Blackburnian Warbler. Summer resident.

Dendroica virens, Black-throated Green Warbler. Summer resident.

Seiurus aurocapillus, Oven Bird. Summer resident.

Seiurus noveboracensis, Water Thrush. Summer resident. Rare.

Geothlypis philadelphia, Mourning Warbler. Summer resident.

Geothlypis trichas, Maryland Yellow-Throat. Summer resident.

Sylvania pusilla, Wilson's Warbler. Migrant.

Sylvania canadensis, Canadian Warbler. Summer resident.

Setophaga ruticilla, American Redstart. Summer resident.

Galeoscoptes carolinensis, Catbird. Summer resident.

Harporhynchus rufus, Brown Thrasher. Summer resident. Rare.

Troglodytes aedon, House Wren. Summer resident.

Troglodytes hiemalis, Winter Wren. Commonest in mountain towns.

Certhia familiaris americana, Brown Creeper. Summer resident. Rare. One nest taken.

Sitta carolinensis, White-breasted Nuthatch. Resident.

Sitta canadensis, Red-breasted Nuthatch. Resident.

Parus atricapillus, Chickadee. Resident.

Regulus satrapa, Golden-crowned Kinglet. Resident. Breeds commonly.

Regulus calendula, Ruby-crowned Kinglet. Spring migrant.

Turdus mustelinus, Wood Thrush. Summer resident.

Turdus fuscescens, Wilson's Thrush. Summer resident.

Turdus aliciae bicknelli, Bicknell's Thrush. Summer resident above 3,000 feet elevation.

Turdus ustulatus swainsonii, Olive-backed Thrush. Summer resident, chiefly above 1,800 feet elevation.

Turdus aonalaschkae pallasii, Hermit Thrush. Summer resident.

Merula migratoria, American Robin. Summer resident.

Sialia sialis, Bluebird. Summer resident.

NESTING OF THE DUCK HAWK.

(*Falco peregrinus anatum*)

BY W. A. KENT, Proctor.

(*Read at 1905 meeting, an abstract.*)

About the first of May, 1896, the writer with his brother visited the nesting site of a pair of Duck Hawks, situated on a steep cliff which has been occupied by these birds for many years. The cliff was on a north slope of a mountain range which has an altitude of 2,662 feet, the cliff itself being about 2,500 feet in altitude. With noisy crackle the hawks were soon dashing near them, flying back and forth and uttering their shrill cries. Indications pointed toward the nest being on one of the shelves which could be reached only by being lowered from above, the side being vertical and made uneven by projecting points of rocks. It was necessary to abandon the attempt to reach the nest.

On May 9, 1897, the nesting site was again visited. The writer was lowered by a rope 40 feet over the side of the cliff to the shelf from which the hawk had been seen flying. On rounding a projection he beheld four eggs. They were in a slight nest or hollow made of a few bones and a little dirt, solid rock beneath. The eggs were spotted and blotched so heavily as to be nearly a brick red all over. The shelf was 5 feet by 2½ feet, the eggs being placed under a projecting rock so as to be protected from above. Meanwhile both birds had been dashing back and forth, continually giving their crackling cry, coming so near the writer at times that it made it uncomfortable for him in his position. The eggs were about one fourth advanced in incubation, all being in the same stage.

The flight of the birds was very rapid. They were not seen to sail while they were being molested, the wing strokes being always fast.

Their cry was peculiar, not shrill and piercing like many hawks, but a noisy crackle. It has two syllables, the first being the lower, and slurring up a few notes to the latter which is sharper and slightly shorter.

In May, 1898, a set of four fresh eggs were taken. The nest was about 20 feet from the one used the year previous. It was simply a hollow in the dirt and was partly hidden by some shrubs that had gained a foothold on the shelf of rocks.

On May 1 and 14, 1900, the place was visited in the same manner as already described. Although the nest appeared fresh, no eggs were found therein. The birds were not as bold as heretofore.

On May 2, 1901, a set of four fresh eggs were found in the nest used in 1897. The hawks were as bold as when first met. On June 10 a second set of three fresh eggs were taken in the nest occupied in 1898. They were slightly lighter in color and were not blotched and spotted as heavily as the previous sets. Several times when the cliff was visited only one of the birds would be present at first, but very soon the other would be seen approaching from far away, and always from the same direction, possibly from some favorite feeding ground where a good view could be obtained of the cliff, as the hawk always immediately returned when danger was near.

ABSTRACTS OF PAPERS READ AT THE WINTER MEETING.

It is regretted that all the papers cannot be printed in full. The following are carefully prepared abstracts of most of those read.

NESTING OF THE PILEATED WOODPECKER.

(*Ceophloeus Pileatus.*)

By D. E. KENT, Rutland.

On May 22, 1905, a nest of the pileated woodpecker was found in East Wallingford, in the vicinity of "Spectacle Pond," in woods composed chiefly of beech, birch and maple trees. Upon entering the woods a pileated alighted on a tree a short distance away, searching for food and seeming not at all concerned about the presence of man. As these birds are usually very shy and difficult to approach nearer than 50 yards, it was thought that the nest must be close at hand. The nest was finally located in a partially decayed beech. After repeated rappings upon the trunk, the pileated thrust out her head, keen eyed and alert, and looking about a moment flew to a tree 20 yards distant, uttering all the while a sharp, cackling cry.

The entrance of the nest cavity was 3¼ inches by 4 inches, drilled in straight about 9 inches, and forty feet from the ground. The depth of the cavity was two feet, the inside dimensions being about seven by nine inches. The nest contained three eggs, nest stained and heavily incubated. The examination of her nest greatly disturbed the female bird, but the male remained at a distance and seemed unconcerned.

ATTRACTING BIRDS IN WINTER.

A. C. DIKE, Bristol.

Feeding birds in winter not only yields exceptional opportunities for bird study but is a practical means of bird protection which is within the reach of all. Many of our winter birds depend for food upon the seeds of various weeds and other plants. When these are covered with deep snow the birds frequently experience want and sometimes starvation. At such times birds by nature shy and retiring seek the homes of man for food. Then is our opportunity to feed, shelter, protect and study them. The feeding is begun in October, suet, bones with meat attached, raw pork rinds, crushed buckwheat, weed seed, and sunflower seed being placed in convenient places for the birds.

On account of the extreme cold, the winter of 1903 furnished the most interesting experience with birds. The more northern species commonly with us as stragglers, at this time appeared in great numbers. The first visitors to the lunch counters were a family of four chickadees which became so tame that they would take food from the hand. White-breasted nuthatches, downy woodpeckers, hairy woodpeckers came frequently and blue jays, occasionally. Tree sparrows, goldfinches, redpolls and juncos appearing later partook of the seeds scattered upon the ground.

The woodpeckers and nuthatches seemed to prefer the suet, the chickadees the pork rinds which were cut into strips two or three inches wide and ten inches long, fastened to the branches by tacks. The chickadees were also very fond of sunflower seeds. Many of our resident species, if fed during the winter, will nest in the immediate vicinity during the summer and will prove very beneficial from an economic standpoint.

TWO FINDS OF 1905.

By G. H. ROSS, Rutland.

The prairie horned lark, *octoris alpestris practicola*, one of the eleven subspecies of horned lark, *octoris alpestris*, has been a resident of New England only within a comparatively recent period, being origin-

ally found much farther west. It is a resident of Vermont, but in winter is likely to be confounded with the horned lark, which then visits us from the north, from which it may be distinguished by its slightly smaller size and by the line over the eye being slightly yellow.

The bird inhabits open meadows and pastures, seldom perching on trees, though often alighting on fences and wires. The lark raises two or three broods, nesting often in March before the snow is entirely gone. A member of the Club from Poultney, found a nest in March, but the writer's efforts to do so were unsuccessful.

The finding of two nests of this species are described, the first on April 7, a difficult task on account of the wariness of the female which slipping off the nest and running fifteen or twenty yards, would then take wing at a distance of 75 yards from the intruder. It was only by hiding and watching the bird that the nest was finally located. The nest was placed in a small natural cavity at the foot of a tuft of grass, flush with the surface of the ground, made of dry grasses compactly woven together, outside dimensions 3¾ by 3¼ inches, cavity 3 by 2⅜ inches, and two inches deep. The eggs were four in number, a light grayish brown, finely and closely spotted with darker, partly incubated.

The second nest, containing three eggs, was found a few days later. The same difficulty in locating it was experienced, although the birds were not so shy. The male was flushed between the searchers and the nest, the female when they were about six feet from the nest. During the examination of the nests in both cases, the males hovered near singing, while the females fed quietly at a distance. The writer visited these nests frequently but both were destroyed before the young were ready to leave the nest, probably by some animal.

The second find was a nest of the goshawk, *accipiter atricapillus,* in Mendon, April 23,. A pair of this species had been noticed in this vicinity during the preceding winter but they were thought to be simply winter visitants. On the above date the writer made a search which resulted in finding the nest placed in a birch tree 25 feet from the ground, loosely constructed of sticks. It was about 3 feet in diameter and 2 feet from top to bottom. The eggs, four in number, were apparently unspotted. The female made a great outcry, swooping at times within a few feet of the climber's head, while the male remained quiet at a distance. The cry was a sharp two-syllabled utterance, something like the note of the red-shouldered hawk.

SOME ADIRONDACK BIRD NOTES.

MISS E. E. DREW, Burlington.

This paper deals in an interesting way with observations made of birds in the spring of 1905:

A pair of crossbills, *loxia curvirostra minor*, were observed from April 30 to June 8. They became so tame that the writer was able to sit for an hour at a time within six feet of them. She attracted them by means of bits of salt pork tied to the limbs of trees.

May 4 a ruby-crowned kinglet was observed in song, "a prolonged and varied warble, mellow and flute like with such sweetness and purity of tone!"

On May 9 and later dates the writer noticed "a queer looking crow." A description of the bird was sent to the Department of Agriculture at Washington and a reply was received that the bird described was undoubtedly a raven, *corvus corax principalis*.

A PRELIMINARY LIST OF BIRDS OF SOUTHERN VERMONT.

BY MRS. ELIZABETH B. DAVENPORT, Brattleboro.

The territory of this list includes the townships of Readsboro, Whitingham, Stamford and Pownal. Observations were made during the first and last weeks of May and the first ten days of June 1905. The list includes 86 species. Mrs. Davenport plans to make further investigations of the region during the coming summer, reporting results at the winter meeting. That the list may be more complete, publication is deferred until the next issue of the bulletin.

CALIFORNIAN BIRD NOTES.

NELLY HART WOODWORTH, St. Albans.

This exceedingly interesting paper expressed in charming language contains nearly 10,000 words. A creditable abstract within the space allowed is, therefore, clearly impossible. The writer gives graphic and realistic descriptions of bird life which she observed in cities and suburbs, on mesas, foothills, canons, and mountains. In company with Mrs. Olive Thorne Miller the writer spent one winter on a ranch. A larger portion of the paper deals with her observations and experiences with birds during that time.

The closing words are quoted: "During my two years in California I found about 260 species of birds. In winter months when vast armies of Northern birds are there, Californian birds will doubtless outnumber ours of the same months, numerically, a hundred to one. When the last migrant has departed, and the home birds settle down to their spring's work, it is doubtful if there are many more than in New England. When you talk of song, however, the chief charm of the bird, it will, with few exceptions, bear no comparison, either in quantity or quality, with our northern singers."

Mrs. Woodworth has kindly promised to read the paper again at the joint session of the two Clubs at the next winter meeting.

THE NEST OF AN ACADIAN FLYCATCHER.

(*Empidonax virescens*)

By Dr. L. H. Ross, Bennington.

It was on the 14th of July 1904, that the writer accompanied by his wife went in search of wood thrushes. This necessitated visiting the mountains east of Bennington as the birds rarely in that vicinity come into the valleys—in fact so infrequently that they are known locally as the "mountain thrush."

As they were ascending a wood-road leading up one of the foothills about four miles southeast of Bennington, they came to a small clearing surrounded by second growth timber, with now and then a tree of older growth. Hearing the thrushes about, they took positions in a spot surrounded by small bushes which concealed them. Hardly had they seated themselves, when from a small tree near by came two notes which resembled the first notes of a white-throated sparrow. Glancing in the direction from which the notes came, the listeners perceived that they proceeded from a flycatcher. The bird was joined by his mate. First one and then the other would dart out and seize a passing insect, return to its perch on a dead branch, and then repeat the two notes energetically. As far as their observations went, the notes were always given while perching. They studied the birds carefully and after following them a short distance found their nest which was in a beech tree about 30 feet from the clearing. It was hung from a fork of a horizontal branch, 8 feet from the ground; was loosely constructed of white birch bark and lined with pine needles and hair. The nest contained three young fully feathered and nearly ready to fly. When the spot was visited about a week later, the nest was empty and neither adult birds nor the young were to be found.

CONSTITUTION OF THE VERMONT BIRD CLUB.

Section I. This organization shall be called the Vermont Bird Club.

Sec. II. The objects of the Club shall be: To afford a convenient means for communication between those persons in the state who are interested in the study of birds; to collect and preserve information concerning those species found in the state; to create and encourage an interest in birds; to promote scientific investigation and to secure protection for all useful species.

Sec. III. The Officers of the Club shall be a President, Vice-President, Secretary-Treasurer, and an Executive Committee, consisting of three members. These Officers shall be elected annually.

Sec. IV. Any person willing to aid in the objects named in Sec. II, is eligible to membership, and may be elected at any regularly called meeting by vote of a majority of the members present.

Sec. V. Each member shall pay an annual fee of fifty cents.

Sec. VI. Meetings may be called by the Officers at such time and place as may seem to them best.

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ANNOUNCEMENT AS TO FIELD MEETING.

It was voted at the winter meeting that the next field meeting be held on Mt. Mansfield about July first. In accordance with this decison the officers have formulated preliminary plans as follows:

The party will assemble at Stowe on the evening of Tuesday, July 3. Teams will be engaged for an early start on the morning of Wednesday, July 4, to carry the party to near the foot of the mountain. Most will probably wish to make the climb on foot, providing the weather is favorable. Those who prefer can ride bicycles to this point, and any who feel that the climb would overtax their strength can continue with team to the summit. In any case there will be opportunity to send baggage by team. Allowing time for a leisurely climb the Summit House should be reached by the dinner hour. Late comers can make the ascent by the regular stage leaving Stowe about ten o'clock A. M.

The afternoon of July 4 can then be given to exploring the summit. The plans for Thursday, July 5, have not been formulated. Smugglers' Notch can be visited on the second day by starting from the Summit House Thursday morning either on foot or by team. A picnic dinner can be eaten in the Notch and those who desire to reach evening trains can do so either by returning to Stowe or by going through the Notch to Jeffersonville. Members desiring to prolong the outing could stay another day, passing the night at Harlow's Inn, near the base of the mountain on the Stowe side, and on the next morning tramping through Nebraska Notch, which leads around the south end of the mountain and reaching Underhill in time for the evening train.

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One copy of this Bulletin is sent to each member of the Club. Additional copies may be secured at ten cents each. Orders for these and other communications relative to the Bulletin should be addressed to G. H. Ross, Secretary Vermont Bird Club, Rutland, Vt.

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BIRDS OF WINDHAM AND BENNINGTON COUNTIES.

MRS. ELIZABETH B. DAVENPORT.

For the larger part of my life I have been somewhat familiar with the flora and fauna of southern Vermont. In the earlier years I drove wherever roads were passable, and followed the fishermen along most of the trout streams into the heart of the hills. Since the organization of the Bird Club my purpose has been to go over the region very thoroughly to verify previous observations, and add such new data as opportunity offered.

Windham and Bennington counties reach entirely across the State and include a little more than one fourth of its latitudinal extent, a territory embracing approximately forty miles square. Lat. about 42:30.—43:20. Long. 72:30—73:15. (Windham Co. 700 square miles. Bennington 780 square miles, 4-5 farms and 3-4 of this under cultivation.) West River, with its various affluents drains the northeast part of Windham County, emptying into the Connecticut in Brattleboro. Green river waters some of the south central townships. The Deerfield cuts a tortuous way from the wilds of Stratton southward. West of the Deerfield watershed the drainage is mainly to the Hoosac, Walloomsic and Battenkill. (A few streams, however, finally reach the waters of Lake Champlain.)

The altitude of the territory varies greatly, being lowest on the eastern side of such townships as border on the Connecticut River, about 200 feet at the river in Brattleboro, and not rising much northward in Windham county. Along the Connecticut, however, the river valley is narrow, and the ascent of the land westward is rapid, reaching 3600 attitude in Somerset and over 3800 feet in Manchester, most of the hills ranging from 2200 feet to 3000 feet. The lowest altitude in Bennington county is I think 700 feet at Pownal in the southwest corner of the State.

The southern parts of Stanford and Pownal differ greatly from the eastern townships. Passing from Readsboro through the last "Wind-gap" of the Green Mountains we leave the valley of the Deerfield and enter that of the Hoosac. As we descend to the broadening alluvial plain, the north branch of the Hoosac lies between the Hoosac range on the east, and the diminishing hills of the Green

Mountains on the west, and sweeps down toward North Adams, where Greylock's peaks and deep ravines bound the horizon.

From the ridges of Pownal one overlooks the enchanting valley of the Hoosac, the Taconic Mountains lifting sharply to the west, and the amphitheatre about Williamstown circling round toward Greylock's flanks.

The country from border to border offers every condition which birds and all other lovers of out doors could desire. Alluvial meadows threaded by slow moving streams, pastures with swampy hollows and boggy reaches extending far into the flanking hills, the hillsides dotted or crowded with communities of cedars, young pines and spruces, apple bushes browsed into curious shapes, and berry bearing shrubs of various kinds Upland pastures with reaches of short sweet grass, interminable acres of Dicksonia crowding the boulder-strewn slopes to the edge of the encroaching forest, or may be to the bare wind-swept summits, an undulating sea of green like no other summer tint, and golden brown when the year is ripening.

Range upon range of densely wooded dome-shaped hills, flowing into beautiful lines on the horizon. Sombre, bare, shattered summits and precipitous cliffs rising above the enclosing greens beneath.

Wild mountain torrents cascading through the deep forests, Streams of the open woodland. The soft, illusive gloom of the tamarack swamps, sphagnum swamps, and great areas where swamps penetrate the hard-wood forest or make still, secluded pools in the bushy clearings. Lonely ponds in rocky basins among the mountain peaks, and open sunlit ponds sensitive to every breeze.

I should like to consider the counties by townships, making an ecological study of each, but such treatment would unduly lengthen my paper.

The forests are such as are common to all our mountain towns, mainly red spruce (Picea nigra rubra), balsam fir (abies balsamea), hemlock, (Tsuga canadensis), paper birch (Betula papyrifera yellow birch (Betula lutea), beech (Fagus americana), and sugar maple (Acer barbatum). Young plantations of white pine (Pinus strobus), are more vigorous in the western county. Red pine (Pinus resinosa) is found occasionally in region about Brattleboro, also in the river valley in Pownal. I found a few gray pines (Pinus divaricata), in Bennington county, (about the Dome) also black spruce (Picea mariana) in the peat bogs.

Arbor vitae (Thuya occidentalis) is much more plentiful in Bennington county than eastward. Juniper (Juniperus virginiana) occurs on the dry rocky hills in Connecticut Valley towns, but is rarely met with in Bennington county. Chestnut (Castenea dentata) the length of Windham county in the Connecticut Valley, and I think not above Manchester in Bennington county. White Oak (Quercus alba) extends further north along the Connecticut than on the western side of the State; red oak (Quercus rubra) is more common. Chestnut Oak (Quercus prinus) in the mountains of Bennington county, but I have failed to find it in Windham county.

In some sections the hemlock and spruce forests are fast disappearing, and inroads are being made on the hard woods. Along the Deerfield Valley the hills are shorn of spruce well up into Somerset, and with the extension of the railroad from Wilmington to Stratton the Deerfield Valley Lumber Co. will penetrate to the very heart of the last great stand of spruce timber on Stratton Mountain, and that magnificent forest may fall.

1. **Colymbus holboellii.** HOLBOELL'S GREBE.—Stray.
2. **Gavia imber.** LOON.—Occasional S. R.
3. **Gavia lumme.** RED-THROATED LOON.—W. V. Rare.
4. **Uria lomvia.** BRUNNICHS MURRE.—Occasional Stray.
5. **Larus argentatus.** HERRING GULL.—Stray.
6. **Merganser americanus.** AMERICAN MERGANSER.—M. in Eastern part of State. Dr. Ross reports it S. R., not common in Bennington.
7. **Anas boschas.** MALLARD.—M., not common.
8. **Anas obscura.** BLACK DUCK.—Uncommon S. R.
9. **Aix sponsa.** WOOD DUCK.—Rare S. R.
10. **Anthya villisneria.** CANVAS BACK DUCK.—Rare M.
11. **Charitonetta albeola.** BUFFLEHEAD...Rare M.
12. **Clangula clangula americana.** AMER. GOLDEN EYE.—W. V.
13. **Branta canadensis.** CANADA GOOSE.—M.
14. **Botaurus lentiginosus.** AMERICAN BITTERN.—S. R.
15. **Ardea herodias.** GREAS HERON.—S. R. Not common.
16. **Butorides virescens.** GREEN HERON.—S. R.
17. **Rallus virginianus.** VIRGINIA RAIL.—M. May breed.
18. **Porzana carolina.** SORA RAIL.—S. R. Not common.
19. **Porzana noveboracensis.** YELLOW RAIL.—M. (May breed).
20. **Fulica americana.** COOT.—S. R.
21. **Philohela minor.** AMERICAN WOODCOCK.—S. R. common.
22. **Gallinago delicata.** WILSON'S SNIPE.—M.
23. **Tringa fuscicolus.** WHITE-RUMPED SAND PIPER.—Rare M.
24. **Totanus melanoleucus.** GREATER YELLOW-LEGS.—M.
25. **Helodromus solitarius.** SOLITARY SANDPIPER.—M.
26. **Bartramia longicauda.** BARTRAMIAN SANDPIPER.—S. R. Not common.
27. **Actitis maculana.** SPOTTED SANDPIPER.—Common S. R.
28. **Oxyechus vociferus.** KILLDEER.—M.

29. **Colinus virginianus.** BOB-WHITE.—R. Mr. Richard Bradley released fifty birds in Brattleboro some thirty years ago. They breed freely, but winter sleet storms are probably accountable for their small increase. These birds are much more abundant in Bennington county. Have found them in the hill towns of Marlboro and Wilmington.

30. **Bonasa umbellus.** RUFFED GROUSE.—Common R.

31. **Bonasa umbellus togata.** CANADIAN RUFFED GROUSE.—R. Not uncommon in the hill towns.

32. **Lenaidura macroura.** MOURNING DOVE.—Have but one record of this bird. Brattleboro May 1900.

33. **Circus hudsonius.** MARSH HAWK.—Common S. R.

34. **Accipiter velox.** SHARP-SHINNED HAWK.—S. R.. This hawk has appeared near my house in February following the small birds that were feeding about the windows.

35. **Accipiter cooperii.** COOPER'S HAWK.—S. R. I find this hawk more frequently on the wooded hillsides above the pastures, attacking Robins, Chewinks and Brown Thrashers.

36. **Accipiter atricapillus.** AMERICAN GOSHAWK.—W. V.

37. **Buteo borealis.** RED-TAILED HAWK.—R. The most common hawk of the hill towns.

38. **Buteo lineatus.** RED-SHOULDERED HAWK.—S. R. Not so numerous as the preceeding, but always found along the river-valleys.

39. **Buteo platypterus.** BROAD-WINGED HAWK.—Rare summer. resident. Found most frequently in autumn along the wooded streams.

40. **Falco perigrinus anatum.** DUCK HAWK.—Occasionally met with in the hill towns in May and early June. May breed. Records for the county north of Bennington.

41. **Falco columbarius.** PIGEON HAWK.—M. In eastern portion of State. Dr. Ross reports it S. R. (Rare) in Bennington.

42. **Falco sparverius.** SPARROW HAWK.—S. R

43. **Pandion haliaetus carolinensis.** AMERICAN OSPREY.—Rare S. R.

44. **Asio Wilsonianus.** LONG-EARED OWL.—R.

45. **Asio accipitrinus.** SHORT-EARED OWL.—M

46. **Syrnium varium.** BARRED OWL.—R. in hill towns.

47. **Scotiaptex nebulosa.** GREAT GRAY OWL.—Rare W. V.

48. **Cryptoglaux acadia.** SAW-WHET OWL.—R. in hill towns.

49. **Megascops asio.** SCREECH OWL.—Common R.

50. **Bubo virginianus.** GREAT HORNED OWL.—Common R.

51. **Nyctea nyctea.** SNOWY OWL.—Irregular W. V. Sometimes quite abundant as in 1905-1906.

52. **Coccyzus americana.** YELLOW-BILLED CUCKOO.—S. R. Not common, but occasionally nesting in shrubbery near residences.

53. **Coccyzus erythropthalmus.** BLACK-BILLED CUCKOO.—S. R. Common.

54. **Ceryle alcyon.** BELTED KINGFISHER.—S. R. Abundant. Occasionally resident about open water.

55. **Dryobates villosus.** HAIRY WOODPECKER.—R., but not abundant.

56. **Dryobates pubescens medianus.** DOWNY WOODPECKER.—

57. **Picoides articus.** ARCTIC THREE-TOED WOODPECKER.—W. V. Found late in June in the hill towns. May breed.

W. V. Found late in June in the hill towns. May breed.

58. **Picoides americanus.** AMERICAN THREE-TOED WOODPECKER.—W. V.

59. **Sphyrapicus varius.** YELLOW-BELLIED SAPSUCKER.—S. R. Most numerous in hill towns.

60. **Ceophloeus piliatus.** PILIATED WOODPECKER.—R. These birds winter in the woods on the lower hills, but disappear from these haunts as spring advances. Find them nesting in the hill towns.

61. **Melanerpes erythrocephalus.** RED-HEADED WOODPECKER. Found in the western county as S. R., but not common. In 1893 a pair of these beautiful birds were on Baker's Brook in Newfane. In the intervening years several other observers have reported them from the same locality. This covers all my records for the whole eastern side of the State.

62. **Colaptes auratus luteus.** NORTHERN FLICKER.—Abundant S. R.

63. **Anthrostomus vociferus.** WHIP-POOR-WILL.—S. R. Not so abundant, nor so generally distributed as in former years.

64. **Chordeiles virginianus.** NIGHT HAWK.—S. R. The residents of the interior hill towns tell me this bird is not so common as it was ten years ago. That it has entirely abandoned certain sections formerly occupied my own observations prove.

65. **Chaetura pelagica.** CHIMNEY SWIFT.—Abundant S. R.

66. **Trochilus colubris.** RUBY-THROATED HUMMINGBIRD.—Common S. R.

67. **Tyranus tyranus.** KINGBIRD.—Abundant S. R.

68. **Myiarchus crinitus.** GREAT CRESTED FLYCATCHER.—Not uncommon S. R.

69. **Sayornis phoebe.** PHOEBE.—Abundant S. R.

70. **Nuttallornis borealis.** OLIVE-SIDED FLYCATCHER.—S. R. Common about all the swamps in the hill towns.

71. **Contopus virens.** WOOD PEWEE.—Common S. R.

72. **Empidonax flaviventris.** YELLOW-BELLIED FLYCATCHER.—M. in eastern part of Windham County. Dr. Ross reports it rare S. R. in Bennington.

73. **Empidonax traillii alnorum.** ALDER FLYCATCHER.—Abundant S. R. along all the alder and willow fringed brooks in the hill towns. Also in the thickets of swampy pastures.

74. **Empidonax minimus.** LEAST FLYCATCHER.— Abundant S. R.

75. **Otocoris alpestris praticola.** PRAIRRE HORNED LARK.—S. R. Not common, but extending its range each year.

76. **Cyanocitta cristata.** BLUE JAY.—Common R.

77. **Perisoreus canadensis.** CANADA JAY.—Rare W. V. As this bird is S. R. on the higher mountains of northern Vermont it may yet be found breeding in Stratton.

78. **Corvus brachyrhynochos.** CROW.—R.

79. **Dolichonyx oryzivorus.** BOBOLINK.—Common S. R.

80. **Molothrus ater.** COWBIRD.—S. R.

81. **Agelaius phoeniceus.** RED-WINGED BLACKBIRD.—Common S. R.

82. **Sturnella magna.** MEADOWLARK.—S. R. Not so abundant on the eastern as on the western side of the State.

83. **Icterus spurius.** ORCHARD ORIOLE.—S. R. in Bennington, but rare. Found once with young in Brattleboro, but careful search in all vincinity after trees were bare failed to reveal the nest.

84. **Icterus galbula.** BALTIMORE ORIOLE.—Common S. R. While the nests are not confined to the elms, I do not find the bird where the elm disappears. At Londonderry it is fairly common, but is not found as you approach Stratton Mountain from that point. It is not a question of altitude for in Halifax Centre I found it nesting.

85. **Euphagus carolinus.** RUSTY BLACKBIRD.—M.

86. **Quiscalus quiscula.** PURPLE GRACKLE.—Have found the bird but once in Southern Vermont. It is reported common in or near Bennington. I failed to identify it there, but did find the next.

87. **Quiscalus quiscula aeneus.** BRONZED GRACKLE.—Common. S. R.

88. **Pinicola enucleator leucura.** PINE GROSBEAK.—Common W. V. Very abundant some seasons, never entirely absent in winter from sections where the maple is well fruited. Sing softly in March.

89. **Carpodacus purpureus.** PURPLE FINCH.—Abundant S. R. This bird is increasing in Southern Vermont. Nests in and near Brattleboro village, and all across the State to the hills about the Deerfield River. Dr. Ross gives it as S. R. in Bennington, but not common.

90. **Loxia curvirostra minor.** AMERICAN GROSSBILL.—R. Less common in the winter than at any other season. Find the bird nesting only in the hill towns, 1200 feet altitude, but straying flocks are met with in the valleys all summer, as in Brattleboro.

91. **Loxia leucoptera.** WHITE-WINGED CROSSBILL.—W. V. Rare.

92. **Acanthus linarai.** REDPOLL.—W. V. in towns of lower altitude. Found birds evidently building in Somerset and Stratton.

93. **Astragalinus tristis.** AMERICAN GOLDFINCH.—R. Not common in the winter.

94. **Spinus pinus.** PINE SISKIN.—W. V. The first week in August I found this bird on the hills of Dover. One record of nesting in Brattleboro.

95. **Passerina nivalis.** SNOW BUNTING.—W. V. Common.

96. **Calcarius lapponicus.** LAPLAND LONGSPUR.—M. V. Rare.

97. **Pooecetes gramineus.** VESPER SPARROW.—S. R. Abundant in most pasture land. Not so numerous as the Savanna in Stamford and Pownal.

98. **Passerculus Sandwichensis Savanna.** SAVANNA SPARROW. Common S. R. Abundant in the hill towns in the meadows.

99. **Coturniculus Savannarum passerinus.** GRASSHOPPER SPARROW.—Uncommon S. R. except in extreme southern portion of the State. In both meadow and pastures.

100. **Zonctrich leucophrys.** WHITE-CROWNED SPARROW.—Common M.

101. **Zonotrith albicollis.** WHITE-THROATED SPARROW.—S. R. Common in the hill towns. Occasionally a few strays winter in the lowlands.

102. **Spizella monticola.** TREE SPARROW.—W. V. Abundant.

103. **Spizella socialis.**—S. R. Abundant near all habitations. I never find this bird in the hill towns far from the farms, except occasionally in such pastures as the Field Sparrow frequents.

104. **Spizella pusilla.** FIELD SPARROW.—S. R. Abundant in all our townships in the rough hilly pastures among the young pines and junipers, (Juniperus virgincanus).

105. **Junco hyemalis.** JUNCO.—S. R. Abundant above 1000 feet. Occasionally winters with us.

106. Melospiza cenerea melodia. SONG SPARROW.—S. R. Abundant.

107 Melospiza lincolni LINCOLN'S FINCH.—M. Not common.

108. Melospiza georgiana. SWAMP SPARROW.—S. R.

109. Passerella ilica. FOX SPARROW.—M. I think this bird more common on the eastern than on the western side of the State. It is a common spring migrant in Windham County, much less common in Fall.

110. Passer domesticus. ENGLISH SPARROW.—As yet this bird seems not to have spread far from the villages along the line of the railroads. Numerous on both eastern and western borders of the State, and in the West River and Deerfield valleys.

111. Pipilo erythrophthalmus. CHEWINK.—S. R. Common.

112. Cardinalis cardinalis.—Reported in Brattleboro by observers who know the bird in the South. Have not been able to verify report.

113. Zamelodia ludoviciana. ROSE-BREASTED GROSBEAK.—S. R. Common and growing more abundant.

114. Cyanospiza cyanea. INDIGO BUNTING.—S. R. Common.

115. Piranga erythromelas. SCARLET TANAGER.—S. R. In all open woodland. Found with the Rose-breasted Grosbeak about all clearings in the mountain forests.

116. Progne subis. PURPLE MARTIN.—S. R. Not common. More abundant on the western side of Bennington county. Since the destruction by the long cold rains of 1903 most of the old haunts are still deserted, or sparingly occupied.

117.—Petrochelidon lunifrons. CLIFF SWALLOW.—S. R. Abundant.

118. Hirundo erythrogaster. BARN SWALLOW. S. R. Abundant.

119. Iridoproene bicolor. TREE SWALLOW.—S. R.

120. Riparia riparia. BANK SWALLOW.—S. R.

121. Ampelus garrulus.—BOHEMIAN WAXWING.—M. Reported from Bennington County. Identified one flock in Brattleboro. April 1901.

122. Ampelis cedrorum. CEDAR WAXWING.—S. R. Abundant in both counties. In flocks in the orchards in May eating insects. Find them every month from March until October.

123. Lanius borealis. NORTHERN SHRIKE.—W. V.

124. Lanius ludovicianus migrans. MIGRANT SHRIKE—S. R. Not common.

125. Vireo olivaceous. RED-EYED VIREO.—S. R. Abundant.

126. Vireo philadelphicus. PHILADELPHIA VIREO.—S. R. Found the bird nesting in Brattleboro in June 1901 In the spring of 1905 identified a number during the migration period early in May, and think further records of nesting could be made for Southern Vermont.

Note—Mrs. C. P. Webster found a pair nesting in Morrisville.

127. Vireo gilvus. WARBLING VIREO.—S. R. This bird, with the Yellow-throated Vireo, is found about all our villages and occasionally about the near by farms.

128. Vireo flavifrons. YELLOW-THROATED VIREO.—S. R.

129. Vireo solitarius. SOLITARY VIREO.—S. R. Abundant in Windham County, also in the eastern portion of Bennington County, less so on the extreme western side of the State.

130. Vireo noveboracense. WHITE-EYED VIREO.—This bird frequents Chesterfield township, N. H. in latitude of Brattleboro.

Have found it once only this side of the river.

131. **Mniotilta varia.** BLACK AND WHITE WARBLER.—S. R.

132. **Helmintho phila chrysoptera.** GOLDEN-WINGED WARBLER.—Have found this bird rarely in migration. No record of nesting.

133. **Helminthophila rubricapilla.** NASHVILLE WARBLER.—Abundant S. R.

134. **Helminthophila peregrina.** TENNESSEE WARBLER.—M.

135. **Compsothlypis americana usnea.** ..NORTHERN PALM WARBLER.—S. R. Abundant in the Hemlock swamps of our hills.

136.—**Dendroica tigrina.** CAPE MAY WARBLER.—M. Some years entirely absent. Never numerous.

137. **Dendroica aestiva.** SUMMER YELLOW-BIRD.—Common S. R. More abundant in Bennington County than in Windham County.

138. **Dendroica caerulescens.** BLACK-THROATED BLUE WARBLER.—S. R. Abundant in all swampy forest land in the hill towns. in many sections they are numerous, most generally distributed warbler of the hill towns.

139. **Dendroica coronata.** YELLOW-RUMPED WARBLER.—S. R. occasionally. Mostly M. Have found this bird and the magnolia, feeding young near Brattleboro at about 600 feet altitude. The latter was in a swamp with heavy cover of hemlock, and the yellow-rump on the higher ground in the mixed growth.

140. **Dendroica maculosa.** MAGNOLIA WARBLER.—Common S. R. frequenting almost every growth of young coniferous trees on the hilly pastures where the cover is not too open.

141. **Dendroica pennsylvanica.** CHESTNUT-SIDED WARBLER. —Common S. R. frequenting the open growth of deciduous trees and shrubbery of both lowland and mountain.

142. **Dendroica castanea.** BAY-BREASTED WARBLER.—M. of irregular occurrence. More often found in the Deerfield Valley than in the valley of the Connecticut swampy maples.

143. **Dendroica striata.** BLACK-POLL WARBLER.—M. Common.

144. **Dendroica blackburniae.** BLACKBURNIAN WARBLER.—Common S. R. Nesting usually in hemlock, but feeding much in oaks and maples.. I mention this feeding habit. as most authorities give the habitat among coniferous trees.

145. **Dendroica virens.** BLACK-THROATED GREEN WARBLER.—S. R. frequenting all the hemlock forests of the hills.

146. **Dendroica vigorsi.** PINE WARBLER.—S. R. Not abundant, but almost every growth of white pine is the summer home of a pair of these birds. Occasionally I find them in the hemlocks.

147. **Dendroica palmyrum hypochrysea.** YELLOW PALM WARBLER.—M. of irregular occurrence.

148. **Seiurus aurocapillus.** OVEN-BIRD.—S. R. Common.

149. **Seiurus noveboracensis.** NORTHERN WATER THRUSH.—Uncommon S. R.

150. **Seiurus motacilla.** LOUISIANA WATER THRUSH.—During the fall migration this bird came to the bathing pans near the house. It remained about the orchard and lawns for a part of the day. Knowing Vermont to be entirely out of its range, I verified again and again the distinctive markings. I have a record for nest and young on Leyden Brook, fifteen miles south of Brattleboro, having had both parent birds under close observation for several hours while feeding young.

151. **Geothylpis agilis.** CONNECTICUT WARBLER.—Rare M. I

have two spring records. The more interesting was May 1901. The bird frequented the shrubbery, feeding about the roots, often coming out into the open ground. When disturbed it rarely took wing, but ran rapidly to cover among the bushes. A cold storm delayed the northward movement of the migrants, and this bird tarried several days with the flock which was made up of our more common warblers.

152. **Geothylphis philadelphia.** MOURNING WARBLER.—Com mon S. R. of the bushy clearings of our mountain woods, and mountain meadows where maples, birches and beeches are scattered in neighborly groops, and give protection to the berry bushes from the brousing cattle.

153. **Geothylpis trichus brachidactyla.** NORTHERN YELLOW THROAT.—Abundant S. R.

154. **Wilsonia pusilla.** WILSON'S BLACKCAP.—M. Common in the spring.

155. **Wilsonia canadensis.** CANADIAN WARBLER.—Common S. R. in all the hill towns.

156. **Setophage ruticilla.** AMERICAN REDSTART.—Abundant S. R.

157. **Anthus pensilvanicus.** AMERICAN PIPIT.—M. Have found it only in the fall.

158. **Galeoscoptis carolinensis.** CATBIRD.—S. R.

159. **Toxostoma rufum.** BROWN THRASHER.—S. R. Found this bird more numerous in the township of Stamford than in any other town of the two counties.

160. **Troglodytes aedon.** HOUSE WREN.—S. R. Much more rarely found than 1880-1890.

161. **Olbiorchilus hiemalis.** WINTER WREN.—S. R. in the mountain towns.

162. **Telmatodytes palustris.** LONG-BILLED MARSH WREN.—One record, Brattleboro May 1902.

163. **Certhia familiaris americana.** BROWN CREEPER.—R. Had a pair under observation an entire winter and a single bird a second winter. Breeds in the hill towns.

164. **Sitta carolinensis.** WHITE-BREASTED NUTHATCH.—R.

165. **Sitta canadensis.** RED-BREASTED NUTHATCH.—R. Less common in winter than the former. Breeds spariingly at the lower altitudes.

166. **Parus tricapillus.** CHICKADEE.—R. Abundant.

167. **Parus hudsonius.** HUDSONIAN CHICADEE.—W. V. rare.

168. **Regulus Satrapa.** GOLDEN-CROWNED KINGLET.—R. breeding in the hill towns, and wintering in coniferous forests of the lower altitudes.

169.—**Regules calendula.** RUBY-CROWNED KINGLET.—M.

170. **Hylocichla mustelince.** WOOD THRUSH.—S. R. Common in the lower range of townships.

171. **Hylocichla fuscescens.** WILSON'S THRUSH.—S. R. Common.

172. **Hylocichla aliciae bicknelli.** BICKNELL'S THURSH.M.

173. **Hylocichla ustulata swainsonii.** SWAINSON'S THRUSH.—S. R. Not uncommon in the hill towns.

174. **Hylocichla guttata palassi.** HERMIT THRUSH.—S. R. Found in every township. In the southern range of townships occupies same territory as the Wood Thrush, allowing for differences in environment of nesting sites. In the hill towns, and hills of other towns, in same found area with the Swainson. I should say the most

abundant Thrush of the two counties.

175. Merula migratoria. AMERICAN ROBIN.—S. R. Occasionally R.

176. Sialia sialis. BLUE BIRD.—S. R.

R., resident; S. R., summer resident; M., migrant; W. V., winter visitant.

PROBLEMS OF THE VERMONT BIRD CLUB.

CARLTON D. HOWE.

Feeling that there are some important matters which should be brought to the attention of the members of the Vermont Bird Club, the writer has selected the title of "Problems" as a suitable caption through which to express his thoughts.

There comes a time in the life of an organization, as well as in the life of an individual when it is wise to meditate upon the "whys" and "wherefores" of existence, to get away from the cares of the world, as it were, and to have a period of retrospection and introspection. The results of such processes of self-examination are beneficial.

The Vermont Bird Club is in the sixth year of its existence. During this short time it has proved its right to live and its necessity as a state organization. If we were not too modest, we might well congratulate ourselves upon its success thus far. However, it is not to the past, but to the future to which I wish especially to invite your attention.

One of the problems to be considered is that of membership. It is by no means our policy to place upon rolls those whose stay with us would be transient and fleeting. But we do need more members, two classes of them, each equally important, (1) those who are able to do scientific, research work, and (2) those who are interested in the bird life of our state to such an extent that they are willing to become permanent members of the Club. All of our activities are supported by the proceeds from the annual dues alone. We must issue the yearly bulletin of the Club. There are other things we would like to do, if we only had the money.

At present there are 94 members of the Vermont Bird Club. It is interesting to notice their distribution. There are 2 members from Addison County, 3 from Bennington, 24 from Chittenden, 9 from Caledonia, 0 from Essex, 1 from Franklin, 0 from Grand Isle, 7 from Lamoille, 6 from Orange, 0 from Orleans, 18 from Rutland, 1 from Washing-

ton, 6 from Windham, and 2 from Windsor. 11 members reside outside of Vermont. These 83 members are residents of only 30 different towns and cities. We should have a member of the Vermont Club in every town in the state. If I remember aright, there are 246 towns in Vermont. Therefore 216 towns are not represented in our Club.

Every present member should make it a matter of personal interest and pride to increase the Club's membership. Cannot each one of us obtain at least two new members each year? We realize that only a small portion of the members are able to attend the annual meetings, and in the past we have lost members on that account. As the annual Bird Bulletin is now an assured fact, we hope that it will keep such members in closer touch with the Club and sustain a binding and enduring interest. Now, then, it behooves us to make this Bulletin of ever increasing attractiveness and value.

In the Constitution of the Vermont Bird Club you may read that one of its objects is "to collect and preserve information concerning those species found in the state." For the past three years the Club has distributed migration blanks upon which to record the species observed, and other data, throughout the year. There are only eight members who have returned to the secretary completed migration lists for two consecutive years. We freely admit that a majority of the members cannot keep such a list. But is not this number eight altogether too small? Let us make the number twenty and let us begin now. What a gain it would be in our knowledge of Vermont Birds, if there were twenty stations throughout the state where migration lists were being kept.

Again from our Constitution we read "to encourage an interest in birds and to promote scientific investigations." It seems to me we lack enthusiasm in this line of our effort. Let us take for our example in promoting interest and scientific investigations our sister Club in Botany. Just think for a moment what the Vermont Botanical Club has accomplished during the twelve years of its existence. There is probably not a town, territory, gore, mountain, lake, valley, pond or swamp in the entire state that has not disclosed its secrets, to a greater or less degree, to some member of that Club. How enthusiastic and painstaking its officers are and how they transmit that enthusiasm to each individual member. Are we, officers of the Vermont Bird Club, remiss in our duty?

The Botanical Club is creating and training constantly skilled botanists. It has them in all stages of development from embryo to maturity. It includes among its membership botanists who are known, honored and revered beyond the limits of Vermont, New England and the United States, in fact every where that flowers are studied and loved. Why has Vermont never produced a trained, expert, famous ornithologist?

The Botanical Club has the advantage of the Bird Club in one intensely interesting and all absorbing line of investigations. I refer to the dividing and subdividing of speices. Think of the crategus, the sedges, the violets, and the blackberries. How fascinating it is to discover, to establish and to name new species and varieties. Is the tendency to vary greater among plants than among birds or are the senses of the botanists keener and their power of observation more acute Is it possible for us, members of the Bird Club to subdivide the Vermont crow into thirty or forty varieties?

There appeared in the village of Essex Junction two summers ago a robin which imitated the whippoorwill's song so perfectly as to deceive the trained ear. Now let us name this particular robin merula migratoria, variety whippoorwillia. I have the type species. All you need to do is to discover the recurrence of whippoorwillia in other parts of the state and then our variety will be established.

There is another robin at the present time in Essex Junction reared in the house from a fledgeling, never having heard the song of its own kind. When it began to sing it did not sing the robin's song but those seemingly of its own invention. The good lady who raised the bird maintains that it takes some of its tunes from a neighbor's phonograph. Let us name this bird merula migratoria phonographia.

The last but by no means the least among the objects of our Club is "to secure protection to all useful species of birds." It is a well known fact that the bird laws of Vermont are not strictly enforced. Moreover, in certain sections they are openly and grossly disobeyed. In many towns where a foreign element predominates birds are indiscriminately slaughtered, being used in many cases by such people for food.

There is more than one town in Vermont where the birds are practically shot out of existence. In the summer of 1905 a member of the Bird Club passed through a town in southern Vermont, where most of the birds had been shot.

A stray phoebe or blue bird, and a few warblers made the whole list. Can we who are surrounded and uplifted by the sweet and beautiful songs of birds every summer's day, can we imagine such a condition of things? Can we realize what it means to such a community?

In some localities in the State, a strong feeling against birds seems to be held by the fruit growers. At the latest session of the Legislature an effort was made to have the cedar waxwing or cherry bird taken from the protected list. Through the efforts of the Vermont Bird Club and the State Audubon Society and through the good sense of the Fish and Game Committee to which the bill was referred, the waxwing was saved from legal slaughter. The danger always exists in our body politic of one individual or a small group of individuals, on account of injuries, either actual or fancied, endeavoring to have laws passed, state or national in scope, that cover single particular cases. Such individuals blinded by their own personal interests, are incapable of seeing that what may be detrimental to the one actually is for the best good of the many.

The first 19 years of my life I lived upon a farm on which one of the chief products was berries. I can sympathize with the fruit grower who is troubled by the birds. Everybody realizes that birds occasionally injure crops seriously. But there are other ways of keeping them away than by use of powder and shot.

The fruit growers know perfectly well what those other effectual ways are and should use them in the place of killing. The point to be remembered always is this that taking the season as a whole the amount of good which the bird does over-balances the injury.

When the birds are eating your fruit and the products of your gardens, bear in mind that they are only taking their pay for the good service they have rendered you. I admit that sometimes it takes a good deal of grace to do this, but it is man's plain duty.

It is our problem to educate the public in regard to the economic value of birds. The farmer should be taught that the birds are his best friends, that they are of incalculable value to him and his crops. When the farmer, the fruit grower and orchardist fully realize this fact, there will be no trouble from that source in the full protection which the birds deserve.

In the summer time from the mountain tops, hillsides and valleys of Vermont, multitudes of the beautiful songsters

are giving forth constantly their sweet carols of joy, praise, and gladness, and I think also, if we interpret their songs aright they are inviting the members of the Vermont Bird Club to study their habits more fully and carefully, to protect them more thoroughly, and to love them more deeply.

NESTING OF THE WINTER WREN.

Troglodytes hiemalis.

G. H. ROSS.

The winter wren occurs during the breeding season from Nova Scotia and Prince Edward Island on the east to Manitoba on the west and south to Massachusetts and central New York, though along the mountains it is found through Pennsylvania, .Virginia. W. Virginia to North North Carolina, Northern Illinois, Indiana and Central Iowa are its western limits.

The winter wren breeds generally throughout Vermont in suitable localities. In and around Rutland they are found from 600 feet up. As there is a greater quantity of suitable cover in the mountain towns they are more plentiful there. Any good sized bit of lowland swamp or wet woodland containing a number of upturned roots is pretty certain to harbor a pair.

Until the past spring though I had searched a number of times I had never seen a nest, though several hours at a time had been put in watching individual birds during the breeding season chasing them around, and examining stumps, trees, roots, etc.

On May 21st, 1906, a friend and myself started to ascend Shrewsbury mountain, one of the three high peaks about ten miles east of Rutland. It was also the intention to keep watch for winter wrens as the territory was such that they would be plentiful. During the first part of the trip up the mountain several were heard, but no stop was made as the mountain was to be climbed first and any remaining time given to the wrens.

However, coming at length to a cluster of half a dozen upturned tree roots, we decided to examine them. From one of them out popped a wren. Surely here was a nest, but a most careful search failed to discover it. The bird lingering near, was watched for sime time but with no result. Finally, my companion called me to him. There in a large upturned spruce root near him was a nest. It was

3 1-2 feet from the ground placed inconspicuously among a mass of roots. The nest was dome shaped with an entrance near the centre of the side toward us. The round entrance was the only conspicuous part of it. It was made outwardly of green moss and lined with fine black roots and a few feathers. It was rather shallow front to rear, owing to the space between the roots being small. However, it was an old nest, and search through the remaining roots failed to reveal a new one.

Farther along the way we came to an overhanging bank full of roots. Search here revealed an old nest. Coming down after the ascent of the mountain we examined each upturned root. In one spruce root which had two overhanging flaps of earth and roots, on the main body of roots and opposite the larger flap so as to be in the shadow a new nest was found. This was about 18 inches from the ground. It was made of fresh green moss, soft and yielding to the touch. It was as yet unlined. This was cunningly concealed among the numerous small roots and was conspicuous only because of the round hole for the entrance. Directly in the opening between the two flaps and thirty inches from the ground was an old nest. No wrens were heard or seen near this nest. However, it was now in the afternoon, and while wrens were heard frequently during the forenoon, none were heard in the afternoon.

Two more nests were found May 22nd. One was an old nest and rather conspicuous, 3 feet up from the ground among the roots of an upturned stump. The other was new and incompleted. This was four feet up in a rather large upturned spruce root. Root was about 8 feet high by 9 feet across. It was fresh and green and not quite all lined. So it was left for two weeks and visited on June 5th as I wished to see the eggs. However, the nest was empty. But as the wren is said to be very particular in regard to disturbance of or handling of its nest before the eggs are laid, it may have been deserted from this cause. This nest was quite shallow from front to back, as seems to be commonly the case, lack of space between the roots being the cause. The new nest found first being so far away was not again visited as it was expected this other nest would be laid in. Thus the eggs were not seen.

Another nest was found August 12th, while visiting a mountain pond in Chittenden with a friend, who said that in June he had heard a wren singing on one side of the pond. As there were quite a number of upturned trees and

stumps a search was made. The nest was finally found in a small root less than four feet across and about 4 feet high. It was near the centre about two feet up from the ground. It was still quite green, fresh and showed traces of a brood having been raised. Further search revealed no other nest.

After finding the nests in May, Mr. Duane Kent of Rutland was told about the nesting places of this species. While on a trip to his home near Spectacle Pond in Wallingford, which the club has visited on one of its summer meetings, he found two nests. One found the fourth day of June containing five slightly incubated eggs. This nest was on the under side of an overhanging flap of an upturned spruce root. The root was quite large, about 10 feet high. Nest about 7 feet up so it could just be reached. .The nest was rather flimsy. It had a lining of partridge feathers. The bird remained on until almost touched. The other nest was new and incomplete. It was 12 inches from the ground and quite bulky. Mr. Kent was unable to visit it later, so he does not know if eggs were laid or not.

This makes a total of nine nests, enough to justify us in drawing a few conclusions in regard to nesting site, etc.

All nests were placed in trees so recently uprooted, that the small rootlets had had no chance to decay and fall away, leaving only dirt and large roots. The small rootlets afford not only concealment but support, the nest being of moss, a flimsy material. Where old roots seem to consist largely of earth and stones, it seems a waste of time to search them. In two cases the nests were so concealed by overhanging flaps as to be entirely hidden. In the others they were in plain view and conspicuous on account of the little, round entrance hole. Except where Mr Kent found the nest, no wrens were seen or heard in the vicinity. In the one case where both birds were seen and heard in the vicinity of a number of upturned roots, careful search on two different days failed to discover a nest.

From the nest with incubated eggs on June 4th and the incompleted nests of May 21st, and 22nd, it would seem that about June 1st was the proper date for eggs. But as the spring of 1906 was quite backward, we might assign about May 20th to 25th as the ordinary dates. Search should be made among the roots of upturned trees. Evergreen trees are the most favorable on account of their thick mass of fine rootlets.

OUR THRUSHES AND THEIR SONGS.

MISS ISABEL M. PADDOCK.

In talking with other people about birds, no group has seemed more difficult for them to identify clearly than the thrushes, and yet, paradoxically, the thrush is frequently one of the first birds learned. The reason is not far to seek. The usual song of these birds, of whichever variety, attracts the attention of even a casual listener, and stimulates his curiosity to see the bird which can produce such wild music. But even after continued study so shy are the thrushes, and so little striking in appearance, that it is difficult to be quite sure of them and to distinguish the varieties unerringly.

Of the five thrushes found in New England, the Veery or Wilson's thrush is generally distributed throughout Vermont. The Hermit and the Olive-backed or Swainson's thrush are common in the northern part of the State, the wood thrush in the southern, while the Bicknell is found on the tops of the highest mountains.

Here in St. Johnsbury, the hermit and veery are very common, but the wood thrush has never been authentically reported, though it has been reported from Willoughby Lake, 25 miles north of here, and from Lake Memphremagog.

The olive-backed I have only seen here in migration, but the entire quintette of New England thrushes may be heard on the slope of Mt. Mansfield during the last five miles of the ascent, from the place where the steepest, wooded part of the mountain road begins to the summit. I say "heard," feeling quite sure that to hear them is the simplest way to learn to distinguish them.

It is not always easy to see the pale eye-ring of the olive-backed, and the birds will seldom be obliging enough to turn their backs in order that you may remember and verify the rule. "The wood thrush is reddest on the head, the hermit is reddest on the tail, and the veery has a uniformily tawny back."

Perhaps it is easier to know the hermit's trick of waving his tail slowly up and down, not, like the phoebe, downward, but rather upward from the horizontal plane. Also that the wood thrush is heavily spotted with black and the veery scarcely spotted at all. But for sure identification depend upon your ear rather than your eye. The song of the veery is vibrant and ringing, with a jewsharp like quality, and ends lower than it began. The Bicknell's song is of a similar quality, but more elaborate form.

The Swainson or olive-backed and the hermit songs end on a higher pitch than the beginning and consist of more distinct tones, not as rapidly delivered or run together.

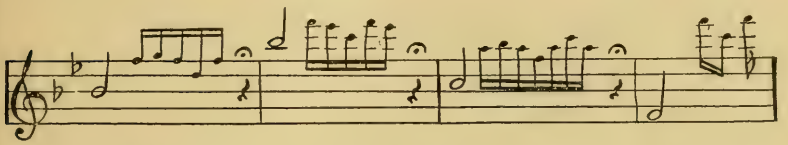
The wood thrush sings with a clear and flute-like quality, now lower, now higher, and intersperses low blackbird-like clucks not audible at a little distance. Its song suggests the syllables "eo-lee," or "Come to me." The hermit's song consists of distinct phrases, no two successively on the same pitch and each pausing on the first note of the phrase, then ascending upward. Some of these phrases are pitched so high as to be scarcely musical to the human ear, while others are a beautiful contralto. The olive-backed's song most resembles the hermit's except that it does not pause on the first note, and the successive phrases are usually on the same key-note.

I do not know how much a musical notation of these songs may help to identify them. I have found it helpful to do this, and others have the same habit. In the hope that these notes jotted down the past two seasons may be helpful to some one else, I offer them to you now. But before giving them I beg to say that it is utterly hopeless to attempt to reproduce these upon the piano. Much bird music certainly does have a definite pitch and sequence of tone, which to a musically trained mind is capable of reproduction in written notes, but to reproduce the tones with any instrument of differing quality is absolutely impossible, and is not the intention of those who try to write them. The notation is merely to convey some idea of the range and intervals of the bird notes, to aid the memory in placing the song, just as a photograph recalls a face but cannot reproduce its vivacity and coloring.

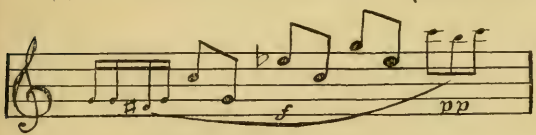
The nearest approach to imitation can be obtained by the human whistle, but that is frequently an insult to the bird.

Song-forms of our Thrushes

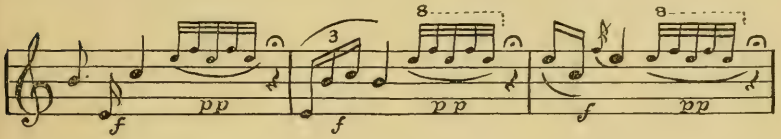
Hermit Thrush. This shows the general form, which is capable of infinite variation



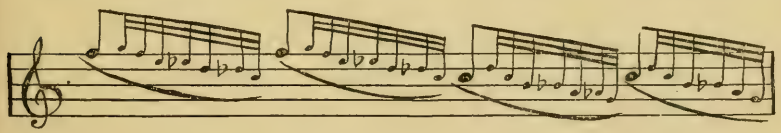
Swainson's or Olive backed Thrush. Similar to the Hermit's, but without pause or change of pitch.



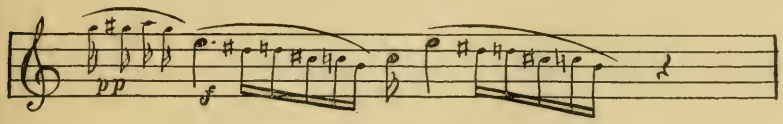
Wood Thrush. Flute-like on the lower notes, the trills have the quality of pebbles struck together.



Wilsons Thrush or Veery. A series of vibrations.



Bicknell's Thrush. Has the quality of Wilsons, but a distinct rhythm, thus: ♩. ♪ ♩



The song is accompanied by low blackbird-like clucks.

NOTES FROM A BIRD TABLE.

(An Abstract.)

MISS MARION BOLE.

As a boarding house is a good place in which to study human nature, so a bird table furnishes an excellent opportunity for the study of bird character. When observed thus at close range especially after the birds have lost much of their natural timidity, they often develop most unexpected traits. Who, for example, would ever suspect the gentle soft-voiced bluebird of being a tyrant? Certainly nothing in my previous knowledge of the bird had prepared me for the action of a pair that nested in one of my bird boxes last summer. They not only took possession of the chickadee's table and drove the inoffensive woodpeckers from their suet on the tree but they also laid claim to all of the five bird houses which I had provided and after they had selected one for their own use, the male bluebird made it his business to see that the other four remained unoccupied.

Some birds, on the other hand, improve with longer acquaintance. The blue jay, although he has such a bad reputation and is doubtless a sad rascal during the nesting season, is most interesting and entertaining as a winter boarder. I have never found the jays quarrelsome among themselves, any number of them eating at the same table. Never have I seen them molest the smaller birds. The jay is naturally very shy and suspicious and it is no easy matter to gain his confidence, but he is also a very intelligent bird and when once he loses his fear and begins to feel at home he proves himself the very best of company.

One little trick that I saw was quite amusing. One jay came late for his dinner and as the board was small and the other jays were crowded around, there seemed to be a poor prospect for the new-comer. He proved equal to the occasion, however, for instead of trying to crowd in he perched on the tree above the board and gave the jay alarm signal. If a shot had been fired among them it could not have been more effective. Every jay was out of sight in less time than it takes to tell it. Then the rascal who had given the alarm flew down and ate his dinner. I saw that little trick played more than once, but the last time I saw it tried one of the jays came back and had a settlement.

Of course the chickadee is always a standby at every winter bird table and he seems to be a general favorite,

not that his disposition is by any means angelic for the chickadee has enough of what we are accustomed to call human nature to keep him from becoming tiresome. It requires a good sized table to accommodate two chickadees at the same time and my hand is the scene of many a spirited encounter till the question of precedence is finally settled.

I do not know of a bird that seems better able to take care of itself than this same alert little chickadee. Nothing seems to escape his bright little eyes and if I place food in an unaccustomed place I feel sure that it will not be long before the chickadee will discover it although it may take days for the woodpecker and nuthatch to find it out.

Of course different individuals vary greatly in intelligence. A chickadee that I have recently tamed proves to be a bird of unsual intelligence. It very soon learned that it could call me out by coming to the back of a chair that stands in front of the kitchen window. This it probably learned from another bird which has that habit, but instead of fluttering before the glass as the other bird does to attract attention it adopted the habit of clinging to the sash and if that does not succeed it sometimes taps on the glass. It soon learned to try the sitting room window when it found no one in the kitchen. It comes so often that it has really got to be quite a serious hindrance to any work. It will cling to the sash or tap on the glass till I speak or rise when it immediately flies to the kitchen window and watches there till I appear; then it usually flies down out the door mat or on the edge of the chair so as to be ready the minute I open the door. I have great difficulty in keeping it out of the house, indeed it often gets in in spite of me.

A summer bird table although not as necessary is I think quite as interesting as a winter table. The song sparrow chipping sparrow, oriole, catbird and others are usually glad of a little assistance while they are rearing the young and as they often bring the young birds to the table as soon as they are able to fly, it gives one a good opportunity to observe the family life. The song and chipping sparrow are both very easily tamed. I have had both these birds take food from my hand and I am sure if they remained with us during the winter they would be quite as tame as the chickadees.

Besides my regular boarders I have many transients that stop off a few days or perhaps a week or two on their way north or south. These strangers are always doubly

welcome for sometimes they are birds that I do not often have an opportunity to observe at close range. My list of boarders, including transients, numbers more than 25 species and each season adds new names to the list. Sometimes a fox sparrow or the beautiful white crowned will favor me with its company for a week or two. Last spring a meadowlark found its way to my table during a late snowstorm. It only stayed one day, but a flock of rusty blackbirds were so well pleased with the board that they remained for more than a week and their monotonous song which reminded me of a rusty weather vane was heard from morning till night.

I had another new boarder last spring, the phoebe, a bird which I never expected to see at my table. I have often felt so sorry for the phoebe during a cold spell in early spring, but the poor things always seemed either hopelessly stupid or else incapable of departing in the slightest degree from the tradition of their ancestors, so that I had long since given up trying to do anything for them, but last spring an enterprising phoebe actually discovered my bird table and its method of feeding was quite characteristic and to me very interesting. It took its position on a fence post and proceeded exactly as if it were capturing an insect, taking the food on the wing and always returning to the same post to eat it. After a time I did see it light on the board and take a few bites, but it worked almost as awkardly and out of place as a woodpecker in the same position.

A WARBLER GUEST.

(An Abstract.)

EMILY L. AND SUSAN E. CLARK.

We have found the yellow warblers unusually plentiful this past season, arriving on the fourteenth of May. About nine o'cock on the morning of the twentieth one of them was discovered on a low bush beside our doorstep, perched very near the ground. It was so unusual to see a warbler in such a position and keeping so quiet that we watched it for some time, fearing it might be hurt, and noticed that it panted or breathed heavily. Finally it went on the ground and hopped about, so we endeavored to catch it for fear of prowling cats. While it trotted along just ahead of us it would not allow iself to be caught,

though it did not offer to fly for some time. At length, however, it flew into a tree with a slow and heavy motion and apparent effort. Then we left it, thinking it safe. Soon after it flew to the roof of the house and back again to its original position on the bush. At intervals it hopped about, pecking a little here and there on the ground, but we could not be sure that it ate anything. We tried to toll it along to a place where we could watch it more easily from a window, and it moved slowly as we walked behind, but soon returned to the door step and remained in that vicinity the rest of the day. In the afternoon it made an effort to fly into a tree, but only fluttered a little and dropped back to the ground, apparently too weak to fly up. As we watched it we saw it cough as our canary had done.

In the latter part of the afternoon a member of the family who was watching the warbler saw it totter and fall and ran to pick it up, when the bird breathed its last in her hand. It has been claimed by some observers that no wild bird ever died a natural death. When we consider the multitude of their enemies, their struggle with the elements, sudden changes of temperature, and perils encountered on their long semi-annual migrations, it would seem that the statement is not an exaggeration. Mr. William J. Long, however, describes the death of a warbler, which he witnessed, and which he ascribes to old age. The whole appearance and manner of death of our yellow warbler were so similar to that of a pet canary which had been one of our family for years and had recently died of old age that it seems probable this bird, too, died a natural death at the end of his span of life.

SOME BIRD ACQUAINTANCES.

(An Abstract.)

EMMA E. DREW.

This paper tells in an interesting way of the bird acquaintances made by the writer in Jay, N. Y., the observations being made from the piazza of the house. A pair of red-eyed vireos built their nest in the near-by branches of an apple tree. She watched the process of home building, the eggs and finally the young which she fed with meal worms to the evident satisfaction and appreciation of the parents. A white-breasted nuthatch became such a close friend that she called him "chum". He came to her in the

house or in the garden, sometimes climbing the whole length of her body and often eating his entire lunch from her hand. This little friend brought his wife and five little ones to a tree near the veranda, about the middle of June, but while he came freely as usual neither Mrs. nuthatch or any of her interesting family could be persuaded to come near. Chickadees, nuthatches, goldfinches, downy and hairy woodpeckers, tree sparrows and blue jays were among the number of bird acquaintances that partook of the dainties of the veranda lunch counter; the first mentioned taking food from the hand. A flock of ten red-winged crossbills were observed from April 30 to June 8. She attracted them by means of pieces of salt pork attached to the limbs of trees. While feeding they would give a whistling note. At intervals one would stop feeding and give a song, a sweet little song, not powerful or very loud but varied and exceedingly pleasing. The writer concludes her paper thus: "Let me tell you that the friendship and the companionship of these little comrades has been not only a source of great pleasure and comfort during these few years of enforced exile from home and friends, but an education as well. Many a needed lesson in patience have they taught me, many a lesson in affectionate consideration as well."

Miss Drew's article is printed in full in the May-June number of Bird Lore.

REPORT OF THE NEW ENGLAND FEDERATION.

MISS DELIA I. GRIFFIN.

The New England Federation of Natural History Societies which the Vermont Botanical and Bird Clubs have joined, met at the Roger Williams Park Museum, Providence, R. I., October 12 and 13, 1906. The Federation was one year old, and consisted of twenty-four societies, divided as follows: Fourteen from Massachusetts, two each from Maine, Vermont, and Rhode Island, one from New Hampshire, and three which belong to all New England. Out of this number, nineteen societies were officially represented at the Providence meeting. About fifty members of the Federation were in attendance, and some hundreds of visitors examined the exhibits during the two days.

These exhibits included specimens of rare flowering plants, ferns, mosses and liverworts (many of them ar-

ranged in celluloid mounts, for convenience in handling); valuable shells; native spiders, with photographs of webs; series of rock specimens, and rare R. I. minerals; exhibits of beetles, moths and butterflies, inculding a series of the gypsy moth in all stages; and the publications of several scientific societies. These publications showed the strong educational trend of many of the societies, and the work they were doing for children and in the schools.

All of the scientific societies in Providence were opened to members of the Federation, as well as the laobratories of Brown University, the college and city libraries, and Roger Williams Park.

On Friday evening, at the Zoological Laboratory of Brown University Prof. A. D. Mead exhibiter the Zeiss Epidiascope lately presented to the laboratory, which projects upon the wall opaque as well as transparent objects of all sizes. There were also exhibited in the laboratory large series of clams, oysters and scollops, illustrating their habits and rate of growth.

Saturday afternoon the members of the Federation visited Warwick Pond, and the site of an old camping ground of the Narragansett Indians.

The meeting closed on Saturday evening with an illustrated lecture by Mr. Charles Storer, on "Orchids and Other Rare Plants."

THE FIFTH ANNUAL FIELD MEETING.

The fifth annual field meeting was held at Mt. Mansfield July 4th and 5th 1906. On the night of the 3rd the members of the two clubs assembled at Stowe. The inclemency of the weather on the next day prevented somewhat the carrying out of previously laid plans. The summit was reached in the afternoon and business meeting was held in the evening. It was voted to hold the winter meeting at St. Johnsbury in January, 1907. Miss Isabel M. Paddock, Miss Emily Clark, and Mrs. T. C. Fletcher were appointed a local committee on arrangements. It was voted to join the New England Federation of Natural History Societies.

THE SIXTH ANNUAL WINTER MEETING.

The sixth annual winter meeting of the Vermont Bird

Club was held at the Fairbank's Museum, St. Johnsbury, January 18-19, 1907. It was the first time within the history of the club that the winter meeting had been held elsewhere than in Burlington, but the experiment proved so successfull that it will probably be repeated from time to time. As in previous years the sessions were united with those of the Vermont Botanical Club.

The Fairbank's museum was the host of the clubs, and provided Friday evening's entertainment, an illustrated lecture on "Bird Notes" by Mr. Henry Oldys of the Biological Survey, Washington. Mr. Oldys' lecture was illustrated not only by lantern slides but by remarkably fine imitations of bird songs, which greatly pleased the large audience that listened to him.

Eight papers were read, abstracts of which appear in this Bulletin. Aside from these there were presented notes, observations and records of interest by the different members of the club.

The usual business was transacted, the officers were re-elected, new members were chosen. The club elected Miss Griffin as their representative at the New England Federation of Natural History Societies.

The treasurer reported a balance of $27.75 in the treasury.

The following persons were elected to membership at the summer meeting at Mt. Mansfield and at the winter meeting held at St. Johnsbury:

Annis, Miss Rosa J.,.....Passumpsic, Vt.
Allen, Mr. John E.,.....Westford, Vt.
Auld, Mrs. Joseph.....424 S. Union St. Burlington, Vt.
Buell, Miss Matie V. Redstone.....Burlington, Vt.
Brooks, Mr. Frank,.....St. Johnsbury
Brooks, Mrs. Frank,.....St. Johnsbury
Chamberlain, Miss Elizabeth,.....Newbury
Comwel, Miss.....Lyndonville
Brainerd, Mrs. Louise..... Lyndonville
Guthrie, Miss Martha A. .....McIndoes Falls
Griswold, Mrs. Inez, A. H...St. Johnsbury R. F. D. No. 4.
Graves, Miss Sara E..... Waterbury
Griffin, Mr. D. B.....Winooski
Granger, Miss Annie M.....East Poultney
Hazen, Miss Annah,.....White River Junction
Howland, Mr. Clark P.....St. Johnsbury
Hubbard, Mrs. Sara A.....Fairlee
Harris, Miss Jean .....East Poultney
Jones, Mr. Charles H.....No. 25 Wilson St. Burlington

Kirk, Mr. George L.....Rutland
Lovering, Mrs. N. P.....St. Johnsbury
Lewis, Miss Frances,.....N. Union St. Burlington
McKillip, Mrs. W. B.....No. 230 S. Union St. Burlington
Morse, Mrs. O. I.....South Royalton
Powell, Miss Gertrude,.....Williams St. Burlington
Powers, Mrs. W. I.....Lyndonville
Riker, Mr. F. W.....Burlington
Rugg, Mr. Harold G.....Hanover, N. H.
Stevens, Miss Mabel.....St. Johnsbury, Vt.
Stone, Miss Belle C.....Enosburgh Falls, Vt.
Simonds, Mrs. A. B..... No. 355 Pearl St. Burlington
Styles, Mr. Humphrey ....No. 103 N. Winooski Ave. Bur.
Tarbox, Miss Cora I.....Essex Junction
Underwood, Mrs. Pearl E.....Hartland
Vail, Miss Katherine.....Lyndonville

THE NEXT FIELD MEETING.

It was decided at the St. Johnsbury meeting to unite with the Botanical club in holding the next field meeting at Pownal, July 1-3. Headquarters will be at Hotel Glenwood, North Pownal where the members and their friends will assemble on July 1. Tuesday, July 2 will probably be given to exploring the cliff regions of Pownal Centre, Wednesday will be devoted to the bog regions of the river valley. Mr. D. S. Carpenter of Middletown Springs will act as local secretary and will attend to local arrangements.

BIRD NOTES.

Mrs. E. B. Davenport of Brattleboro is collecting data in regard to the range of the wood thrush in Vermont. She would be pleased to receive reports from members of the Bird Club.

Miss Isabel M. Paddock of St. Johnsbury contributes to Chapman's Warbler's of North America, musical notations of the songs of fifteen different species of warblers.

Dr. L. H. Ross of Bennington reports the nesting of the rough-winged swallow. He reports also that the kingfisher remains the year around in that vicinity.

Another winter robin has been reported, this time at Proctor, by W. A. Kent.

A member, twelve years old, of the local bird club at Newbury has listed and identified seventy-four different

species of birds during 1906. This is an excellent example and incentive for others. The question arises: How many children of twelve years or older in Vermont are able to name and indentify seventy different kinds of birds?

A member writes: I spent last summer in northern Vermont where the large blue herons were unusually abundant. They were ruthlessly shot by farmers and nd either left where where they fell or thrown away after being exhibited as proofs of skill. When asked why they killed the birds, the reply usually was "O nothing! only just to say I'd shot one."

Mr. C. H. Evans of Townshend reports observing the water thrush on May 17, 1905.

Mr. R. G. Brock of Wells River sends the following notes.

A nest of the red bellied nuthatch was found May 5, 1886 in Scott's grove in a poplar stub about 25 feet from the ground. Cavity about eight inches deep, lined at the bottom with fibrous bark and a few hairs and feathers. There were five fresh eggs. At the entrance was some pine pitch which must have been put there by the birds, but whether for a purpose, or tracked in, I do not know. Has anyone else noticed pitch at the entrance of the nuthatch's nest?

Prairie horned larks were found at Rygate in 1900 Nest on ground in a ploughed field (all that I have ever seen have been on ploughed land) There was a slight cavity with a few straws and lined with cow hair, and some downy material. There were four eggs, color a dirty white, thickly and evenly marked with very fine drab, making them look gray. Since that year they have continued and nest on the farm each year, and on some of the adjoining farms. Till last year there were about half a dozen pairs in the neighborhood. Mr. G. H. Ross of Rutland has found a number of nests of this species, all of which were located on grass land.

Mr. S. O. Brush of Burlington writes thus:

For the last ten years I had heard that every fall swallows congregated in great numbers on Cedar Island, a small island near the Sand Bar bridge in Milton, and late in August 1905 I visited the island. Cedar island is about 3 acres in extent and is heavily wooded with cedar and in the summer is a camping ground for a party of Boston people. I reached the spot late in the afternoon. In the air swallows were hurrying toward the island in countless numbers from every point of the compass as far as the eye

could reach. When they reached the island instead of alighting they circled and wheeled high in the air until the sky above was literaly swarming with them. As night came on with ceaseless chirpings and twitterings they settled down to rest in the cedars. With the aid of a lantern we made a tour of the island that night and found the birds perched in the cedars in countless numbers everywhere, some roosted so low that blinded by the light we could capture and examine them. We found them to be the common bank swallow and as far as my observation I saw no other variety. We would beat on the tree trunk with a stick and such a hubbub would ensue as the startled birds took wing only to settle down again when all was quiet. At day break by ones or twos and in small flocks, they scattered in all directions, to return again as the day waned. People who have long observed the birds tell me that they begin to congregate on the island about the middle of August and leave about September 1st, all departing at the same time. It would be impossible to estimate the number of birds that congregate there and no one who has not seen them there can give an idea of the enormous hosts meeting before their annual departure for the Southland.

Mrs Nelly Hart Woodworth of St. Albans contributes the following observations:

A steel fox-trap weighing five pounds, and marked with the owner's name, was found, two days after it was set, in a distant part of the town. Attached by one leg to the trap was a great Horned Owl (bubo virginianus). Though the bird had flown four miles carrying the heavy trap, it was in good fighting condition when found. Another trap set in the same month—November—upon the top of the house, caught a snowy owl.

Upon Nov. 12th, 1906, a sportsman from Enosburg Falls brought me a large handsome gull which he could not identify. It proved to be a Kittiwake in finest plumage, not a feather of which was soiled or ruffled. The bird, which was mounted and is now in the hunter's possession, had been seen for several days flying over the mill-pond at Enosburg Falls. If there was a doubt before as to including the Kittiwake in the list of Vermont birds this removes it, though the bird has, to my certain knowledge, been taken before at St. Albans Bay.

Several years ago, while living at East Berkshire, I saw white crowned sparrows carrying away bits of dry grass and "excelsior" that, used for packing, was scattered about the

yard. As they flew with it directly across the Missisquoi River, the nest they were building could not be found. The next year they came again and were easily traced in building time to an apple tree in which, four or five feet from the ground, they had built a nest. It was a bulky affair, altogether larger than they needed, I thought, though they seemed to regard it otherwise. As the first egg was laid a wicked old cat sprang upon the sitting bird who escaped fortunately, but the nest was brought to the ground and torn in the struggle. The birds were watched carefully but did not rebuild to my knowledge. Though these elegant sparrows are with us in large numbers for two or three weeks every spring, there has been no evidence since then of their nesting here. So far as I know, the instances given above are the second record of white crowned sparrows nesting in Vermont. A single bird of this species found upon Mt. Mansfield in July, 1906, might easily be taken for circumstantial evidence in the same direction.

While at Shanty Point. Lake Champlain, last July, I was amazed at the number of red headed woodpeckers that were everywhere present. Two or three were often seen at one time upon a single tree near the cottage and their loud call-notes were constant and emphatic. As this bird is called "rare" in Vermont its abundance here was more noticeable. I saw over a hundred of these beautiful birds during the week that I was there. Red bellied nuthatches, too, were common, with Nashville warblers, swamp sparrows, and water thrushes, while the bald eagle came several times daily to his perch upon a dead tree near the shore. Once it flew away over the lake with a calf's leg which it took from a barnyard. Early every morning the eagle was at "The Point" feeding upon dead fish cast upon the lake shore. This pair of birds were said to be regular occupants of one of the islands where they had bred for many years.

The strenuous winter just past furnished a happy compensation in the close companionship of birds, once lured within speaking distance, soon became intimate friends of the household. This was brought about early in the season by fastening a wooden box to my window sill, in which English walnuts, crumbs, and suet were an advertisement of meals at all hours, a free lunch counter that was well patronized. Chickadees and nuthatches were first to note its kindly possibilities, then a pair of blue jays joined the circle to which downy woodpeckers shortly sent in an

application. English sparrows were so persistently "shooed" away that their attendance was limited to the hours when the chamber was empty. One January morning I opened the window to refill the bird's table and, with pieces of suet in my hand, reached inside for a hammer with with which to nail them down. This was done to evade the sparrows who carried the suet away to devour at their leisure in the hedge beyond my jurisdiction. As I turned for the hammer a chickadee came rushing down, alighting in my hand and eating the suet. After this informal introduction, so mutually agreeable, whenever the chickadees were about I had but to open my window and they ate from my hand with winning confidence. Then walnuts were placed upon the sill inside which were at once appropriated, the birds coming fearlessly into my room, hopping about me as I sat by the window, coming to my desk, to picture frames, chairs, and table. The birds were photographed in the room, but the pictures were poor owing to the imperfect light. This chickadee friendship remained close and constant until well into March when a change was apparent. They came less frequently, and with an indifferent, I-never-knew-you air that was most humiliating. Nuthatches stayed on, coming inside at all hours, and eating the bits of walnuts that the wind had blown from the window sill to the floor, before exploring the room and trying on its various perching places. Later on bluebirds and juncos came to my table, making in all seven species of birds that were my guests during the winter.

Vermont Bird Club

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BY THE CLUB

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Carlton D. Howe.

One copy of this Bulletin is sent to each member of the Club. Additional copies may be secured at ten cents each. Orders for these and other communications relative to the Bulletin should be addressed to Carlton D. Howe, Secretary Vermont Bird Club, Essex Junction, Vt.

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SUMMER BIRDS OF MT. MANSFIELD AND REGION ADJACENT TO THE BASE OF THE MOUNTAIN.

(*Abstract*).

Mrs. Elizabeth B. Davenport, Brattleboro, Vt.

Since the days of Pursch the Mansfield region has been one of much interest to the botanist, but the first recorded study of the bird life appeared in the *Auk*, Oct., 1901, giving the results of Mr. Arthur H. Howell's observations made in 1899 and 1900.

Mr. Bradford Torrey published in 1895 his delightful chapter, "Five days on Mt. Mansfield," in *The Footpath Way*, which gave most interesting notes on the bird life.

The present paper is compiled from notes of 1902-04-05-06. My time was spent in the first named year partly on the summit and partly on the plateau at base of the Mt. that I might have freer access to the notches and slopes. This plan was followed in succeeding years, though less time was given to the territory above timber limit, and more to adjacent country, observations being made in Stowe Valley, Elmore Mt. to the east of Stowe Valley, Lake Mansfield region, and the notches and peaks south of Mansfield.

Mt. Mansfield appears as a long range of four peaks, in lat. 44° 28′, about that of Mt. Washington. The altitude of Stowe Village is 584 feet. Timber limit on the mountain estimated about 3,000 feet and the altitude of the Chin almost 5,000 feet.

The bulk of the mountain lies nearly north and south, sweeping up grandly from the valley on the western side, its base both there and on the east defining far reaching curves, whose steep sides are covered with forest on their lower slopes, and whose massive rugged cliffs lift themselves by sharp ascents to the great crest of the mountain.

Approaching from the Stowe side the ascent from the valley begins at the foot of a spur thrown out toward the east, the road winding along its sides, and crossing to the main ridge as the summit is neared. Here for the first time the whole sweep of the mountain top bursts on the view, the flowing outline crowned by the majesty of the Chin as it towers over Smugglers' Notch. A mile and a half of wind swept summit stretches away to this point, sometimes only a narrowing mass of weather worn rock above the precipitous descents, sometimes widening out and making boggy hollows which shelter a few stunted trees among the gigantic rock masses which lie in imposing wreck.

Here in the June days water was oozing and dripping and flowing everywhere among the moss covered rocks. Delicate fronds were answering to the spring time call. White violets lay like snow on the rich green beds, and Clintonias grew tall, swaying their delicate blooms under the spruces, where Black-poll Warblers and Bicknell Thrushes emphasized the fact that we were come into a new land.

The spur of the mountain, above alluded to, widens out at its base below the forest, forming a plateau, two streams uniting at its foot to form the West Branch. These streams are called North and South Branches and drain the mountain sides, the North Branch having its birth in a wonderful spring which bursts from the heart of Stirling Mt. and comes down from Smugglers' Notch.

The forest is mainly red spruce (*Picea rubra*), balsam fir (*Abies balsamea*), hemlock (*Tsuga Canadensis*), yellow birch (*Betula lutea*), beech (*Fagus Americana*) and sugar maple (*Acer saccharum*). The undergrowth is that common to Vermont forest, and where the virgin forest has been disturbed is especially dense.

During the drouth of 1903 forest fires raged on the slopes of Mansfield, mainly south of the Nose. Doubtless many young birds perished, and the food supply must have been somewhat affected in the succeeding year. In 1904 there seemed fewer White-throats and Juncos. In 1906 I thought the birds were there in their previous numbers.

In all my years of wandering afoot over Vermont I have failed to find another place which yields so much of inspiring splendid mountain scenery of varied character, so much of rare beauty and interest in its flora, and such opportunity for study of bird life at close range.

BIRDS OF MANSFIELD REGION.

1. *Actitis macularia*, Spotted Sandpiper. North Branch and down the Valley.

2. *Bonasa umbellus togata*, Canadian Ruffed Grouse. Flushed many broods on the lower slopes of the mountain. Drumming heard almost daily through June and July.

3. *Accipiter velox*, Sharp-shinned Hawk. Occasional, usually about the Summit.

4. *Buteo borealis*, Red-tailed Hawk. Common.

5. *Falco peregrinus anatum*. Duck Hawk. Breeding.

6. *Falco sparverius*, Sparrow Hawk. About base of the mountain.

7. *Coccyzus Americanus*, Yellow-billed Cuckoo. Occasionally found about approaches to Notch road.

8. *Ceryle alcyon*, Belted Kingfisher. Along the Branch Brooks.

9. *Dryobates villosus*, Hairy Woodpecker. Not numerous. Underhill slopes gave most records.

10. *Dryobates pubescens medianus*, Downy Woodpecker. Common in lower valleys and mountain slopes.

11. *Picoides arcticus*, Arctic Three-toed Woodpecker. Underhill Notch, Smugglers' Notch and Joe's Pond.

12. *Sphyrapicus varius*, Yellow-bellied Sap Sucker. Common in deciduous woods.

13. *Chætura pelagica*, Chimney Swift. Common in the Valley. Often seen flying over the Summit.

14. *Trochilus colubris*, Ruby-throated Hummingbird. Frequent at base of mountain.

15. *Tyranus tyranus*. Kingbird. Occasional to base ofm mountain.

16. *Myiarchus crinitus*, Great-crested Fly-catcher. Common about Mr. Harlow's, especially at lower end of North Branch.

17. *Sayornis phœbe*, Phoebe. Nesting about all buildings to Halfway House.

18. *Nuttallornis borealis*, Olive-sided Flycatcher. Common about all swampy areas to base of mountain.

19. *Empidonax flaviventris*, Yellow-bellied Flycatcher. Two pairs located near forest limit in 1902. Later years gave this same record. Also on Underhill slope.

20. *Empidonax traillii alnorum*, Alder Flycatcher. Along all the brooks and in the swampy upland pastures.

21. *Empidonax minimus*, Least Flycatcher. Well up the mountain side. More abundant on Underhill slopes.

22. *Otocoris alpestris praticola*, Prairie Horned Lark. Mrs. Herbert E. Straw first reported these birds in Stowe Valley in 1898. Mr. Howell found them at same station, and reported twenty-five or more in 1901. In 1902 these birds were about the same hill and fields. June 30th, several were on the sloping meadows toward Morristown.

23. *Cyanocitta cristata*, Blue Jay. Not abundant. Usually in the Valley. Occasional to the Summit.

24. *Perisorius canadensis*, Canada Jay. Rare, when found, well toward Summit.

25. *Corvus brachyrhynchos*, Crow. Common below mountain base.

26. *Dolichonyx oryzivorus*, Bobolink. Distributed over all the meadows to foot of mountain. In song July 8th, and about the orchards till July 29th.

27. *Molothrus ater*, Cowbird. Occasional.

28. *Agelaius phœniceus*, Red-winged Blackbird. A few in the meadows below the Forks. More abundant about Lake Mansfield region.

29. *Icterus galbula*, Baltimore Oriole. Not nesting above the junction of the Branches, but young were brought to the orchard about Mr. Harlow's.

30. *Carpodacus purpureus*, Purple Finch. Numerous about the foot of the mountain and Mr. Harlow's. In full song all through the season. Often eating dandelion seed.

31. *Loxia curvirostra minor*, American Crossbill. In flocks and in pairs about the plateau all summer. About the base of the mountain and almost at the summit. Frequently feeding on the ground, eating grass seed and dandelion seed.

32. *Loxia leucoptera*, White-winged Crossbill. None listed in 1902. 1904, occasional near the Summit and in full song in June. Same location 1906.

33. *Astragalinus tristis*, American Goldfinch. Abundant in the valley to the forest.

34. *Spinus pinus*. Pine Siskin. Frequently found in flocks about the Summit.

35. *Poœcetes gramineus*, Vesper Sparrow. Abundant in the valley and upland meadows. Young left nest June 8th, 1904.

36. *Passerculus sandwichensis savanna*. Savanna Sparrow. Distributed abundantly on the plateau. A few pairs in the meadows below the Forks.

37. *Zonotrichia albicollis*. White-throated Sparrow. Along the North Branch. Not on the mountain till well toward Summit, then increasing in numbers. One of the most abundant birds about Summit House. In full song through July though not so many individuals singing as in June. June 23rd earliest record of young out of nest. Some birds showed interesting individual phrasing of the typical song, which was maintained through the season. Through June song from dawn till 10 P. M.

38. *Spizella socialis*, Chipping Sparrow. Abundant in lower valley, but rare on plateau.

39. *Spizella pusilla*, Field Sparrow. One found 1902, and again in 1904. Mrs. Straw does not find this bird in Stowe Valley. My records were both July, and I do not think they were nesting. Shrubby pas-

tures with blueberries usually shelter the Field Sparrow, and no blueberries are about the base of the mountain.

40. *Junco hyemalis*, Junco. Ranging with the White-throats, but extending into the Notches. Along the whole Summit of the Ridge. Very familiar about the hotel, coming to the piazza for crumbs and feeding their young all about the buildings.

41. *Melospiza cinerea melodia*, Song Sparrow. Most abundant bird on the plateau and in the valley.

42. *Passer domesticus*, English Sparrow. In 1906 not above the Stowe Valley.

43. *Pipilo erythrophthalmus*, Chewink. No records in 1902. One pair in shrubby pasture at mountain base in 1904-05-06.

44. *Zamelodia ludoviciana*, Rose-breasted Grosbeak. On the plateau, along the Branches and in the open woods of the lower slopes. Found once at limit of yellow birches and several records at Half-way House. Old birds brought young to potato fields and fed them beetles.

45. *Cyanospiza cyanea*, Indigo Bunting. Common below plateau; less so at foot of mountain.

46. *Piranga erythromelas*, Scarlet Tanager. About the clearings on lower slopes of the mountain. In the Notches and on the hills along the valley.

47. *Petrochelidon lunifrous*, Cliff Swallow. To the base of the mountain.

48. *Hirundo erythrogaster*, Barn Swallow. More numerous than Cliff Swallow.

49. *Riparia riparia*, Bank Swallow. Common in suitable environment.

50. *Ampelis cedorum*, Cedar Waxwing. To the edge of forest all summer.

51. *Vireo olivaceus*, Red-eyed Vireo. Abundant on lower slopes and below. Occasional almost to timber limit.

52. *Vireo gilvus*, Warbling Vireo. Rare in the valley, and not found above that point.

53. *Vireo solitarius*, Solitary Vireo. Occasional on all lower slopes where hemlocks were still standing.

54. *Mniotilta varia*, Black and White Warbler. Common on lower slopes and on the plateau.

55. *Helminthophila rubricapilla*, Nashville Warbler. Abounding from foot of plateau to timber limit. Singing on Mt. till July 28.

56. *Compsothlypis Americana usnea*, Northern Parula Warbler. Most abundant in the Notches, but well distributed in all the Mt. region.

57. *Dendroica æstiva, æstiva*, Yellow Warbler. None above foot of plateau.

58. *Dendroica cærulescens cærulescens*, Black-throated Blue Warbler. Common about lower slopes of Mt. Young out of the nest June 30, and with old birds in orchards July 6.

59. *Dendroica coronata*, Yellow-rumped Warbler. Found as low as the "S" bend. Abundant about Summit. Had a pretty habit of poising on the wing along the edges of the roofs of the hotel and barn, to pick out spiders from under the eaves, the outspread wings and hovering motion showing the rich coloring of the males.

60. *Dendroica maculosa*, Magnolia Warbler. Always among the young spruces and firs in the pastures. Almost to timber limit.

61. *Dendroica pensylvania*, Chestnut-sided Warbler. In all clearings almost to timber limit. Found no young earlier than July 8th.

62. *Dendroica striata*, Black-poll Warbler. Abundant in stunted conifers from 3,000 ft. altitude to summit. Found no young till late in July. Old birds kept well in cover.

63 *Dendroica Blackburniæ*, Blackburnian Warbler. Common on Branches and ranging with the hemlocks, but almost invariably feeding in the deciduous trees.

64. *Dendroica virens*, Black-throated Green Warbler. Common, but distributed with the hemlocks.

65. *Seiurus aurocapillus*, Oven Bird. Common wherever open deciduous woods were found. Flight song all through June. One bird sang every evening after June 11th.

* *Seiurus noveboracensis*, Northern Water Thrush. Listed but once, on North Branch. Carrying building material in bill.

66. *Geothlypis philadelphia*, Mourning Warbler. In 1902 not common. In later years more frequently found. Nested in thickets at edge of forest, especially where berry bushes had sprung up.

67. *Geothlypis trichas brachidactyla*, Northern Yellow-throat. Abundant about streams below plateau.

68. *Wilsonia canadensis*, Canadian Warbler. Common about the overgrown abandoned timber clearings.

69. *Setophaga ruticilla*, Redstart. Not abundant about plateau. In second growth timber along the Branches.

70. *Galeoscoptes carolinensis*, Catbird. Common below forks. To edge of mountain forest in bushy pasture.

71. *Troglodytes aëdon*, House Wren. In Stowe Valley. Rare.

72. *Olbiorchilus hiemalis*, Winter Wren. From foot of plateau to mountain Summit. Until June 18th song with little intermission from dawn, 9 P. M. Still in song July 28th. Heard in the deep forest

among the moss covered tree trunks about whose prostrate forms spinulose ferns clustered, and water filtered and dripped and lay in tiny pools about the great rocks. Heard in the closing hours of the day, when the silvery notes fell on the air as the glowing tints of sunset faded from the sky and mountain top, and purpling shadows folded in the magnificent rocky ramparts of the long swelling ridge.

73. *Certhia familiaris Americana*, Brown Creeper. Rarely listed.

74. *Sitta carolinensis*, White-breasted Nuthatch. Not common.

75. *Sitta canadensis*, Red-breasted Nuthatch. In 1902 only three records, two of these on S. Branch. Never common.

76. *Parus atricapillus*, Chickadee. Not very abundant but very generally distributed wherever hemlocks were found.

77. *Regulus satrapa*, Golden-crowned Kinglet. In 1902 only found in hemlocks at base of mountain. Later years found them breeding in various places on the slopes.

78. *Hylocichla mustelina*, Wood Thrush. Mr. Howell's record is, "I think there were two pairs nesting there in 1899," "heard the song and alarm notes several times in damp maple woods at base." "In 1900 could find no trace of them, nor have they been observed by Mrs. Straw in Stowe Valley."

In 1902 I thought I heard the song in the direction of the above named woods, but the distance was too great to get the entire song and it was not repeated. Search failed to discover them.

In 1904 three pairs were located. One quite near Mr. Harlow's, south of the house. After ten days this pair disappeared. Two pairs remained through the season on the lower slope of the mountain toward the Notch. In 1905 two pairs again in same location. In 1906 same record in this stretch of forest. Second week in July nest was found with four full fledged young.

79. *Hylocichla fuscescens*, Wilson's Thrush. In 1902 no record above plateau, but on S. Branch a most interesting nest found June 8th with four typical Wilson eggs. Nest in a group of six young maple sprouts growing so close that fallen twigs and leaves had lodged, giving bulky platform 18 inches from ground. Nest well sunk in the leaves, thick walled and deeply cupped, of moss, lined with fine root fibres and grass. The moss was a *Polytrichium*, the plants laid close together, the root ends beautifully curved at the bottom, and the capsules crowded together at the rim and overlapped by the blanched leaves of the beech. The bird was not typical Wilson. No warm tint anywhere. Back, wings, tail, rump, just the soft gray of the young maple bark, throat matched perfectly the blanched beech leaves over which it was lifted. Breast and sides creamy, streaks running to the bill. Throat

unstreaked. Eye ring and lores white, the latter strongly marked. Call and alarm notes those of Wilson. Observed bird and nest for three consecutive hours daily, for three days. Bird never objected to my presence. Remained within 6 feet of her. Eggs hatched June 10th. Later years recorded many birds in Notch approaches.

80. *Hylocichla alicia bicknelli*, Bicknell's Thrush. Abundant on the whole mountain crest wherever the swampy ground gave cover of dwarfed spruce and fir. In 1904, singing May 25th though not full and clear. Snow drifts three feet deep under the ledges. June 12th nest located in spruce, four eggs. Birds shy of near approach till young were out, then came about the house and barn feeding on the ground. Occasionally during the season of incubating they would be seen running on the bald ridge feeding at the edges of the bogs, slipping into the dense scrub if too nearly approached. The calls and alarm notes resemble those of other Thrushes, but are easily distinguishable. The "wheu" is thinner than that of the Wilson. The "cluck" is a common note, as also the one resembling the Nighthawk. The usual phrasing of the song was weé â weé â we we chi chi wea wea, the che che thin and high with the vibrant quality of the Wilson but without change of pitch. The last two notes unaccented seeming only an interlude between repetitions of the vibrant notes. They sang from earliest dawn till 9 P. M. during June till about the 20th, then song decreased but still singing July 29th.

81. *Hylocichla ustulata swainsoni*, Swainson's Thrush. Abundant on the Notch Branches and lower slopes, extending well up to timber limit but in decreasing numbers. More shy than Bicknell's. Young almost full grown on mountain July 19th.

82. *Hylocichla gustata palassii*, Hermit Thrush. Well distributed on slopes with southern exposure. In 1902 heard only once on Summit. 1904, two were nesting well up the slopes and could be heard from the ridges near the Summit. 1905-06, gave practically same record.

Thus within a territory covering altitude from 1,000 feet to 4,500 feet and along a road less than five miles in length could be heard all five N. E. Thrushes. Wood Thrush, Wilson's, Swainson's and Hermit sang together on lower slopes. Ascending we left the Wood and Wilson's, and to Summit had Bicknell's Swainson's and Hermit. I have not duplicated this experience.

83. *Merula migratoria*, American Robin. Abundant at base of mountain. A pair nested near Summit House, 1902, and on the slopes near the base, but in the forest in 1904-05-06.

84. *Sialia sialis*, Blue Bird. Common to base of mountain, and nesting to entrance to the forest.

EXPERIENCE WITH PURPLE MARTINS IN BRATTLEBORO.

W. C. HORTON.

About twenty-five years ago, there were several colonies of purple Martins, *Progne subis*, in Brattleboro. The troublesome English sparrows became so plentiful and occupied the martin houses so early in the spring that the martins were driven out of all their homes except but one. This house was taken down by the owner as he became entirely out of patience in trying to keep out the English sparrows. I purchased the house and moved it to my home about a half mile away. I painted and fixed up the house, which had twenty-eight tenements, and named it "The Castle." I put it up on a pole April 29, 1899. May 1st the martins came and occupied it at once. The English sparrows came also but I began shooting them as fast as they came. I kept this up until the martins began to incubate, then the sparrows did not trouble them very much as the martins occupied nearly all the tenements. From that time on every year until June, 1903, I was obliged to fight the Englisn sparrows by shooting them in order to protect my colony of martins. The martins seemed to know that the shooting was not to frighten them. On the average we had about 35 to 40 martins coming every spring about the first of May. When they were ready to migrate to the sunny south in August, young and old numbered about eighty birds.

In June, 1903, came that cold and chilly rain of two weeks' duration which was disastrous to all insectivorous birds, all insects being so benumbed with cold that they could not fly. Then the parent martins could not get food for their young or even for themselves. I found thirty young and several old martins dead in the nests of the Castle and 12 eggs not hatched. What birds remained alive deserted the Castle for the rest of the year. This was a great disappointment to me. The next spring I watched for the remaining martins to return to the Castle. One morning the welcome note of the martin was heard. Three male martins were on the Castle. They stayed about a week or more waiting for their mates to come. Every year the male martins came first and the females later by one or two weeks. In the course of a week three female martins came but acted frightened when they looked into the empty tenements of the Castle. They seemed to remember the horrors of their disaster the year before. They did not light on the Castle at all. The male birds apparently tried to persuade them to stay but they would not and flew away, never to return. The male birds, after waiting a week or more in the Castle flew away and they too did not return to stay. I saw the martins several times that sum-

mer, flying high above the Castle but they did not venture to light upon it.

The year after this disaster with martins, one pair of tree swallows came to the Castle and took up their abode there. They raised a nice family of tree swallows. Two families of tree swallows have occupied the Castle every year since.

Last winter I made up my mind to try the experiment of hatching purple martins eggs under the tree swallows to again establish my colony of martins. I wrote J. Warren Jacobs, ornithologist and oologist, of Waynesburg, Pa., (who has one of the largest colonies of purple martins in the United States) to see if he could furnish me with a few eggs for the experiment. Through his kindness he sent me four eggs.

The experiment was tried under very favorable circumstances, as the tree swallows were occupying my old purple martin house and had been for three years. The story of the experiment is best told in the following extracts from my daily note book:

"May 31, receive four purple martin's eggs from J. Warren Jacobs, Waynesburg, Pa. June 1, I find six tree swallow eggs in a nest, remove four eggs and place the four martin eggs in nest. June 6, I remove the other two tree swallow eggs, leaving the four martin eggs in the nest only. Swallow sitting on eggs nicely. June 11, swallow sitting on eggs O. K. June 15, eggs not hatched. June 16, 7 A. M., find one egg hatched; 6 P. M., find two more eggs hatched. June 17, 7 A. M., I find the other egg hatched. Young martins doing well. Foster parents feeding young martins as though they were their own. June 19, visit the young martins this morning, find them doing well. June 22, visit martins this morning, find them growing and looking finely. Eyes not open yet and not a feather started. Foster parents feeding them nicely. June 24, visit young martins this morning and find them progressing finely. Feathers begin to show under the skin. Eyes just beginning to open a little. Foster parents are caring for them nicely. June 25, I find martins eyes about one-third open. Feathers just begin to show through skin. Young birds cared for finely. June 26, this morning I find the young martins' eyes open; feathers well started through skin; tail feathers show quite a little. All doing finely and all plump and fat. Foster parents giving them the best of care. June 29, 7 A. M., a visit to the martin house. I find not a young martin in the nest; find one on the ground under the house. From the appearance of the young birds should say it had been dead two or three days. Could not find the other three. What caused the disaster I cannot conceive unless the foster parents found out that they were not

of their family and pulled them from the nest, leaving them to die. This ends my first experience in trying to establish my purple martin colony."

Since then, from knowledge gained, I am led to believe that the English sparrows were the cause of the disaster. Instances have come to my attention where the English sparrows have pulled nestling birds of other species out of bird houses and I have little doubt that they did so in this case.

Next spring I intend to try another experiment, hoping for better success.

THE NORTHERN SHRIKE IN WINTER.

MISS MARION BOLE, West Barnet, Vt.

As far as my observations go the Northern Shrike, *Lanius borealis*, does not nest in this vicinity but it is a frequent visitor in spring and fall and occasionally remains during the winter. Naturally it is not a bird that makes itself conspicuous and were it not for the fact that it too often attaches itself to my bird family I should probably see it very seldom.

The chickadees are usually the first to sound the alarm and as I have learned to interpret some of their signals, I always go to the rescue. Often the cause of alarm is a strange cat, but if I find the birds remaining motionless or hiding I feel sure that they have discovered a hawk or a shrike.

When the alarm is given they hide if there is any convenient cover, if not they remain perfectly motionless, occasionally uttering a frightened little cheep, cheep. I have known them to remain in one position for half an hour, the only movement I could detect was the winking of the eye which I have noticed is always a sign of fear in the chickadee. It is surprising to see how difficult it is to discover the birds when they take that position. The nuthatch, especially, has a way of flattening itself against the tree, head downward that gives it very much the appearance of a knot in the tree.

One day recently when I heard the alarm I could only discover two chickadees, one in the tree giving the alarm and another on the bird table holding a piece of doughnut in its bill. They remained in that position fifteen or twenty minutes till the bird in the tree commenced to sing chick-a-dee-dee which evidently indicated that the danger was over for the bird on the table at once commenced to eat the doughnut it had been holding so long and at the same time two birds appeared from under a rose bush near the house, several more from a balsam

tree and two or three which I had not discovered in the maple commenced to move about. There were eight or nine birds where I had only discovered two.

Sometimes the alarm has been given while a bird was on my hand and it would at once take the same rigid attitude as the birds on the tree and remain there, often much to my inconvenience.

Sometimes the alarm proves to be a false one. A jay in the distance is often mistaken for a shrike but the mistake is soon discovered. As soon as the danger is over the birds usually all join in a chorus of chick-a-dee-dees. In my ignorance I used to think, when I heard the chickadees all singing together in that way, that they were feeling particularly happy but have since come to the conclusion that it is more often a sign of distress or at least of excitement. I always investigate when I hear an unusual amount of singing.

At one time when I heard the birds singing in that excited manner I found that a shrike had just caught a bird and was in the act of killing it and a few days since when I responded to the same signal of distress I found a shrike in the tree watching two chickadees which were singing chick-a-dee-dee with all their might. There was no hiding this time, they were in constant motion always keeping above the shrike, neither did they make any attempt to fly away. Evidently they considered it safer to remain where they were and try to keep out of his way. They were probably right, for after watching them for a while he seemed to give it up and flew away.

Three times I have seen the shrike with a bird which it had captured and in each instance, although not near enough to positively identify the bird, I have judged, from the feathers that I found in the snow, that the victim was a sparrow. While I have not actually seen the shrike catch other birds I feel sure that it does so because of the decrease in my bird family that always follows its advent.

This year I first saw a shrike Nov. 29. At that time my family consisted of a large number of chickadees, including several tame birds, doubtless some of my pets of last year, three juncos and a lot of English sparrows. The day that I first saw the shrike, one of my juncos disappeared, the next day another was missing and the third day the last one disappeared. Had they all gone at once I might have thought they had left for fear of the shrike or had decided to go farther south, although that seemed unlikely as it was so late in the season and they had been boarding with me for some time.

A song sparrow, which found its way to my table later on, also disappeared.

I still have some chickadees left but they are considerably reduced in number. I have lost every one of my tame birds and have not the heart to tame any more while the murderous creature is about.

The English sparrow seems to have a perfect terror of the shrike and they usually leave in a body as soon as one appears. After the departure of the sparrows is the first indication I have of the presence of the shrike. Sometimes they remain away all winter. This year they were gone for more than a month and have now returned not much reduced in number.

If the sparrows have an alarm signal I have never been able to discover it but they evidently have no difficulty in interpreting the chickadee signal and exhibit the greatest terror when they hear it.

I have not seen a nuthatch this winter and I have an idea that the nuthatch, perhaps, suffers more from the shrike than almost any other bird. I have no positive evidence to that effect but it has invariably happened that whenever a shrike has joined my bird family, I have lost every nuthatch. I can readily understand that the nuthatch would be particularly helpless in the presence of a shrike if once discovered for the nuthatch is a very slow motioned bird and not nearly so alert and wide awake as the chickadee. The sparrow's policy of running away seems to be a wise one but I have seen no evidence of any such tendency in either the chickadee or the nuthatch. After the most exciting encounter the chickadee will come to the board and eat as if nothing had happened.

NESTING OF JUNCOS IN BRATTLEBORO.

HARRY L. PIPER, Brattleboro, Vt.

Last spring I found five pairs of Juncos, *Junco hyemalis*, nesting on one hill just outside of Brattleboro. The summit of the hill is about 800 feet above sea level and all the nests were between 600 and 700 feet. I failed to find nests on adjoining hills of the same altitude although I did find young juncos in nestling plumage on Governors Mountain in Guilford, six miles to the west, at an altitude of 900 feet. This mountain is about 1,500 feet in altitude and it is possible that the juncos were hatched at a higher level and came down the slope after leaving the nest. They are known to breed on Wantastiquet Mountain, across the Connecticut River from Brattleboro, 1,354 feet high. The general level above which they have been regularly recorded in this vicinity is 1,000 feet.

I have two suggestions to make in explanation of the unusual number of nests at the low level and would like to hear from other

observers in support of either theory. The first is that the cold weather in the spring caused the juncos ,and other birds as well, to nest at a lower level than commonly. In this case I should have found them on nearby hills of the same altitude. The fact that I did not is merely negative evidence and not conclusive. I might have found them there if I had traversed them as thoroughly day after day as I did the hill near my home. If others observers can report them at lower levels than commonly nesting I shall conclude that this explanation is the correct one. Observations on other birds of a similar nature would tend to prove the same theory.

My other theory to account for the unusual record is that the spring before, or possibly two years before, a pair of juncos nested on the hill. They are known to nest casually at much lower altitudes and farther south than their normal nesting range. It is possible that this pair of juncos had unusual success in rearing young and that a larger number than usual lived through the winter to breed in the spring. All these young birds that lived may have returned to the spot where they were reared to build their nests. All five of the nests were within a quarter of a mile radius and all on the same slope of the hill. I know that all five of the nests were successful and a full brood was reared in each case. If this theory is correct it would seem probably that a colony of juncos has been established on this hill and will continue.

The unusual number in so small a radius seems to be more than a mere accident and I should be pleased to hear from other observers in other parts of the state in support of either of these theories or with new theories to advance for their occurrence here. At any rate I shall watch with keenest interest the return of the breeding juncos the coming spring. I have great hopes that the score or more of young who went away will come back to perpetuate their kind in the same locality.

NOTES ON THE WHITE EYED VIREO.

EMILY L. AND SUSAN E. CLARK, St. Johnsbury, Vt.

On the 22th of July, 1899, we saw and identified the White-eyed Vireo, *Vireo noveboracensis*, for the first time. They were in company with a large flock of birds, including a great number of species, which had taken possession of a sugar orchard about a mile from the village, and were greedily eating the millers of the army worms.

That was the year when the sugar places in this section of the state were so devastated by that pest. The following year, May 5, 1900, we saw and identified the white eyed vireo again in the same locality.

Our third date was May 9, 1902. At that time we saw quite a large flock, perhaps a dozen or more. Previously we had seen only one or two individuals.

May 9, 1905, several white eyed vireos were seen in company with a large number of warblers of different species. The birds were in a tree very near our house, and we stood on the doorstep and watched them for a long time. We had the pleasure of hearing the vireos sing at that time. The first time we had ever heard them utter a sound.

On the 21st of that same month we saw them again by the roadside and heard them sing.

May 19, 1907, we saw one white eyed vireo by the roadside

These birds have been positively identified by us, as we have been near enough to see the white eye, and all other distinguishing features. We have never found any nests, nor can we obtain from other observers any records of nests found in this vicinity. In fact these birds have seldom if ever been reported by other observers in this town. As we have (with one exception) seen them only in May we have set them down as migrants. Authorities at Washington, and also in Southern New England, have discredited our statements regarding these birds, claiming this is much too far north for the white eyed vireo ever to be found. We have learned from our experience in studying birds that they sometimes fail to follow the rules laid down for them in books. (Probably a lack of education on their part). But we believe, that there is still a rich and unexplored field in this little corner of Northern Vermont, that would yield valuable information, and perhaps some surprises, to one who had time to devote to these studies.

NOTES ON GREAT CRESTED FLYCATCHERS' NESTS.

SUSAN E. CLARK.

We have been interested in investigating the subject of the building of the Great Crested Flycatcher's nest, *Myiarchus crinitus*, since our first discovery of one on May 30, 1905. This nest was in process of construction, quite high up in a hole in a maple tree. Both birds were carrying in material when first noticed, and attracted our attention by their loud calls and cries. They proceeded with their work, undeterred by the presence of our picnic, directly under their tree, even if their much ado was in protest against such intrusion. The birds carried in great bunches of dried grass, and various materials. One took in a strange looking object dangling from its bill, which was frayed at the ends, and had every appearance of being the proverbial snake skin.

On June 5, we were shown another great crested's nest, built in an old fence post which the birds were using. One in the next post, which the flycatchers had used the previous year, was then occupied by a bluebird. The contents of the nest were examined after the birds were through with it, but no snake skin was found, nor was any found in a nest used by them the following season. We should infer from this, that while it may be their custom to adorn their nomes with such an ornament, they undoubtedly, frequently dispense with it.

GOLDEN EAGLE IN RUTLAND COUNTY.

GEORGE L. KIRK, Rutland, Vt.

On April 15, a man living in Chittenden caught in a fox trap a Golden Eagle, *Aquila chrysaetos*. It was an adult bird in good plumage, having the characteristic well feathered legs. It was brought to Rutland and was on exhibition alive here for some days. As one foot was badly mangled by the trap, the eagle was eventually killed and mounted. It is now on exhibition in the clothing store of Wilson & Root here. The bald eagle is not uncommon at Lake Bomoseen but so far as the writer can learn this is the only authentic record of the golden eagle in this county.

MEADOW LARKS IN WINTER.

GEORGE L. KIRK.

Have any members of the Vermont Club any winter records for Meadow Larks, *Sturnella magna?* The writer has obtained three during 1907, these being the only instances he has ever observed of the larks remaining in the north during cold weather. On January 13, the writer and a companion saw a meadow lark near this city. The weather was very cold and the bird was in a meadow where there was an inch or more of snow. When flushed he seemed to be strong as the average bird, taking a long flight. On December 17, Dr. C. B. Ross of West Rutland, whom I know to be reliable, saw two meadow larks in a swampy meadow. Still later, December 23, George Gallop of Rupert, flushed a bunch of four meadow larks in Pawlet. Several bird students have told me that they never saw meadow larks later than mid-November and the writer would like to hear from club members in other parts of the state on the subject.

MY PET ROBINS.

MISS CORA I. TARBOX, Essex Junction, Vt.

To a lover of birds the nesting season is a time of great interest and also a source of anxiety as many bird tragedies are brought before us. The depredations of cats, the loss of home and parents, by storm and wind have been the means of placing quite a number of waifs and strays in my hands. Among the most interesting is the common robin, of which we have had six, each differing from the other in a marked degree. The first was a full grown but young bird wounded under the left wing, evidently by a shot, which tore feathers, skin and flesh from the ribs leaving a bad wound, clotted with blood. He was brought to my schoolroom, and did not seem afraid as he seemed on the verge of starvation and his hunger overcame his fear. Volunteers were not lacking to procure earthworms for him and he was made as comfortable as possible, having the freedom of the schoolroom. I took him home and kept him for some time, but he never showed anything but toleration of any of us and when he was able to fly he very gladly left us, taking wing to the tallest tree in the vicinity. He left us a stranger as he had come to us.

The next year in June, a young robin was found under the shelter of a carwheel, calling lustily for food. A little boy placed him in my hands and with another boy and girl was of great assistance to us in procuring food and feeding him, as it was no small task to satisfy an appetite like his. When he was about four weeks old, the little girl rescued another forsaken little robin from rough treatment at the hands of some children and taking it in one hand and guiding her wheel with the other she soon placed him in the room with the other pensioner. He seemed such a stupid little thing that we named him the Idiot. He did not care to eat or drink and had no curiosity about anything in the room, being in every way the exact opposite of his companion who liked nothing better than to sit on our heads, shoulders or laps and enjoyed everything that we did for him. We felt that the new comer must not be left to starve, however, so we caught him and fed him much against his will for he protested against it with great vigor; sitting down, kicking and trying with all his little might to escape. The older bird seemed much disturbed whenever this occurred, flying to our shoulders or near the little one, uttering queer little noises. He semed to say don't and we could not understand it. My sister came out of the room they occupied one day saying, "I've made a discovery, the older bird is bringing up the younger one." Such was the case and the seeming stupidity of the little creature was

accounted for. With all the love and devotion of a parent-bird the robin who came to us first was teaching the other to come at a peculiar call and whether it was hungry or not to take the food. There could not have been more than three weeks difference in their ages, yet this baby had taken upon himself what would have been no small burden for an older bird and the only lack he seemed to show was judgment as to quantity, for he literally stuffed his little charge. Many came to see them and all could but wonder at such a display of tenderness in one so young. All this time the little care taker was being fed from our hands and his first food in the morning was bread and milk. He invariably fed his little charge before eating a mouthful, then flew back to the dish and to us to be fed. When the first strawberries were offered him, the temptation was too great and he treated himself to the first mouthful though remembered his little friend in a very generous manner after one taste. He taught it to bathe, having learned the habit himself very early. His bathtub was a soup-plate and it was very amusing to see him driving his small pupil round and round the dish until he at last would hop in. When they seemed able to go out, we opened the window and after two hours of waiting and looking out into such a big world, they took flight one to the front, the other to the back of the house. They called to each other until they came together and they stayed about our yard for several days. A chair having numerous rounds and a straight top was a favorite resting place of the older robin while in the room and a neighbor found one on a chair on his piazza the morning after they went out. The next year was the one when the canker worms were so numerous, and the same chair was used in the orchard. A robin came to it and hopped about exactly as our little friend was accustomed to do and we were convinced that he had returned to us as other robins seemed afraid of him.

The next one was brought to us by a neighbor when very young, the only one of a family of four he was able to save from a cat. We put him in a cage where he lived until he was quite large, and like all the rest his appetite was an object lesson to any one who doubts the absolute necessity of birds as destroyers of insect pests. He became very fond of the common white grub, the larvae of the May beetle and an exact account was kept one day of the number he ate. It was forty-seven and I think he would have eaten more if he had been allowed to. At the same time he had bread and milk, fruit and insects. This was at this time the most loving and familiar of our robin friends, but we felt that no wild bird should be kept a prisoner, so took him to a hill some distance from the house and opened the cage door. I was obliged to take him from the cage, but his fright upon

being in a tree was pitiful. He came back to the cage and I took him home only to try again with the same result. This time he stayed out over night, but found my sister and myself the next forenoon in a field. He flew directly to us and ate my from my hand, remaining on my finger as I went to the house. This was my last attempt at liberating him, except that we often opened the cage door and he would stand in it but rarely came out. He was a charming pet and lived until the next February, when the fumes of turpentine accidentally ended his life.

One year ago last June, two little friends of mine found a tiny nestling at the foot of a tree and as no parent birds came to care for him they put him in a nest of their own construction and gave him to me. The little creature seemed nearly dead, having his eyes closed, his head hanging sidewise and was scarcely able to move at all. It seemed useless to try to feed him but for the sake of the kind care of the little girls I opened his bill and gave him a little moistened cracker. After a little he opened his bill for more and to my surprise gained strength rapidly. His main food was cracker and milk which he much preferred to earthworms, though we gave him quite a quantity of them. He very soon refused them with a disgusted manner, often taking them in his bill and throwing them to one side, at the same time ruffling his feathers as is his habit when displeased. When he became full grown he too was set free, but he did not show any signs of being able to care for himself, always returning to the cage for food and drink. He began to sing quite young but his song was not in the least like a robin's. It was a medley of sweet sounds, often ending in something quite like words. Later he copied the bluebird, the blackbirds and had the bad taste to sing one phrase of a march played on a phonograph across the way. Sometimes he would rival an oriole in calling Peter over and over and at last he began to whistle, at first very low then loud and clear. This he caught from hearing the dog called and has always kept it up. He whistles by the hour, can be heard at a long distance, seems to enjoy this accomplishment very much, and so do a number of workmen who pass the house and can get a response from him at any time in warm weather by whistling first, unless he is hungry and is taking food. The last musical lesson he learned was to sing a robin's song, which he does very sweetly. Mr. Burrough's has said, I believe, that the robin's song is not attuned to the house, that within four walls it is strident and wild but in this instance at least, it is not so. A young blue jay was cared for several weeks in a cage hanging near and after listening to his rather discordant call, our robin with a knowing look re-

peated it exactly. He did not think it worth while it seems, for he did not keep it up, neither did he pay any attention to the jay, farther than to object to the jay being fed first. He once broke his glass bathing dish and I replaced it with a china one of nearly the same shape and size, but he would not use it and I never saw him drink from it. When I gave him another glass one he immediately went into it and the splashing that he indulged in, testified to his delight. His chief food is cracker and milk, which he has always, but we give him house flies, spiders, crickets, wireworms, earwigs, ants, grubs, grasshoppers, indeed all sorts of insect, also lean fresh meat, all of which he takes eagerly from our hands, but rarely can be induced to accept anything from a stranger. A grasshopper is always a source of surprise to him and he seldom catches a live one, but stands looking in all directions after one has made his escape. His cage is his castle and upon his return from a flight among the trees one day, he found a waxwing occupying it. His astonishment was great and his indignation even greater. He ran around the cage several times, the feathers on his head standing up and if he could have reached the little interloper would have made things disagreeable for him. The waxwing was removed to another resting place and our little robin went in and stayed there evidently meaning to prevent any further happenings of that kind. His fear of any bird is great when he is out of his cage and the robins who live near us are his enemies at all times. I have seen two at a time attack him with such force that he fell from the top of a tall tree to the ground. As this is the only bird that we have ever had that has been treated in this way, we infer that his unusual musical abilities accounts for it. Just now he cheers us with a soft little song and an occasional whistle, often indulging in a flight from his cage, following us from room to room, a charming companion, the embodiment of cheerfulness and contentment.

A STORY OF A BLUEBIRD FAMILY.

(An abstract).

MISS ALICE H. SAYLES, Starksboro, Vt.

In the spring of 1907, I kept a daily bulletin, recording the date of the return of each species of our migrating birds. In consulting this record I find that the brave bluebird has first mention. At 6 A. M., March 18, I first noticed him mounted on the topmost spire of of an old lombardy poplar in our yard, warbling "a hymn to welcome the budding year." Previously, a bird box had been placed beneath the eaves of the barn, which was soon discovered by our bluebird and his

mate. On Easter Sunday, March 31, Mrs. Bluebird was hard at work making her new home. A late, cold spring delayed their housekeeping. However, on May 10, four little nestlings brought great joy to this little home. On May 27, three youngsters so plump and pretty came to the door many times and looked out into the world so new and strange to them, while the parents were teaching them their call notes.

Early next morning the four little birds made their debut, being escorted by their parents to a nearby orchard, each one being able to fly quite independently. On May 29, the ground was white with snow. My birds moved to an open pasture lot where brighter sun and shorter grass better enabled them to hunt insects, which were very scare. On Memorial Day a hawk caused a tragedy in our bird family. The mother bird and one of the children fell victims to a savage appetite. The father coaxed the three remaining children back to the orchard and later to the trees on our lawn. The lonely parent was now in a sad plight with three hungry mouths to feed and with insects scarce.

I trust I lightened his burdens by throwing May beetles underneath the wires from which he watched for insects below. He would immediately dart down and after beating them to a pulp, would take them to his babies in the branches. He became quite tame and was loved and admired by us all. Meanwhile, the little home in the bird box was very dear to the faithful father, as not a day passed that he did not go in and out many times.

After a little, the second brood left the nest, the parents leading the so gay that he attracted a spinster or a widow and brought her home to be his bride, and stepmother to his beautiful babies. If he had hoped that she would help him share his family burdens, he must have been sadly disappointed, for Mrs. Bluebird No. 2 immediately proceeded to correct his babies. Many times he was obliged to step in between them and would coax her away by bringing her some choice insect. Soon the young birds began to procure their own food, but the father fed them a hearty meal at supper time.

In due season five little ones appeared in the new home. The mother was tender and devoted to them. She was never willing that the older children should even step in for a look at their little half brothers and sisters. Moreover, she insisted that the father should help her drive his older children from home. At first he objected and continued his watchfulness and devotion to his motherless children. But finally, after constant scolding from wife No. 2,

father bluebird actually joined her in driving them from the paternal roof.

After a little, the second brood left the nest, the parents leading the young to nearby trees and teaching them to use their wings. Gradually they worked farther and farther away from the house. I trust their little family circle is still an unbroken one.

REPORT OF THE GENERAL WORK OF THE NATIONAL ASSOCIATION OF AUDUBON SOCIETIES FOR 1907.

MRS. ELIZABETH B. DAVENPORT.

Mr. William Dutcher, President of the National Association opened his annual address with this quotation from Stevenson, "It is a golden maxim to cultivate the garden for the nose, and the eyes will take care of themselves. Nor must the ear be forgotten; without birds, a garden would be a prison yard," and then proceeded to tell what the Society had done to prevent our country from gravitating to this lamentable condition, giving the results of the work, by special agents in Reservations, Warden Work, Educational Work, State Societies, Women's Clubs and Preservation of Big Game.

Time will not permit more than an outline of any of these branches of activity.

Mr. T. Gilbert Pearson, our secretary, in addition to his general work has been doing special field work, cruising along the coast to locate breeding colonies of seabirds and securing wardens to guard them. In South Carolina, near Cape Romaine he found 500 least tern, now a rare bird.

He attended the meetings of the International Conference of Cotton Manufacturers and Growers, Atlanta, Ga.; the biennial session of the National Ass. of Game Wardens and Commissioners, held in National Park, Wyoming, and the meeting of the League of American Sportsmen (Norfolk).

At all of these gatherings strong resolutions were secured endorsing the work of the U. S. Biol. Survey.

Legislative work in North and South Carolina and Georgia also claimed his attention. He reports the State Audubon Society in South Carolina *incorporated by the Legislature with all the power of a game commission.*

Mr. Edward Howe Forbush was occupied mainly with legislative work from January till June in Massachusetts, Connecticut and New Hampshire. In Massachusetts, bills were passed to protect loons, eagles, gulls and the more useful owls and hawks.

About 2,000 acres are set aside in Martha's Vineyard for the protection and propagation of the vanishing heath hen, once generally distributed on New England coast, now in its last stronghold.

In Connecticut laws were secured requiring registration of all hunters, and close season for wild fowl, snipe and shore birds from Jan. 1st to Sept. 1st.

In New Hampshire bills were passed for protection of wood duck, upland plover and kill deer at all times for a term of years. Twenty-two lectures were also given before State Normal Schools, farmers' associations, and legislatures in the three states.

Mr. H. H. Kopman has been busy in Louisiana and Mississippi, attending farmers' institutes (25), organizing work and cruising along the coast in interest of protection of royal terns, brown pelicans, man-o-war birds, black skimmers, laughing gulls, Louisiana herons. He reported only 6 pairs of snowy herons.

Mr. William L. Finlay has been vigorously at work in Oregon and Washington. Mr. Finlay is known widely for his studies of western birds, his lectures and publications relative to bird life histories. During the past few years there has been considerable work in economic conditions in Oregon and Washington incident to the clearing off and settling of great areas, where fruit raising has grown to be the leading industry. In order to forestall evil birds legislation from persons ill informed as to true relations of birds to agriculture, a systematic work on education has been inaugurated. Under the authority of the University of Oregon, literature will be distributed. Mr. Finlay has been lecturing (no finer slides are used in the country) to granges and has used the press to good advantage. Mr. Finlay has also lectured on bird study and protection in Illinois, Michigan, Minnesota and Indiana.

Mr. John B. Watson acted as warden at Bird Key during May, June and July, which are important months for the nesting of sooty and noddy terns. At this same time he was engaged in the study of the habits of these birds for the Marine Biology Laboratory of the Carnegie Institution.

A. C. Bent looked after the colonies on Cobb's Island, Virginia, and Mr. Arthur H. Norton those of the Maine coast.

Six new reservations have been secured, four on the Pacific coast. The Three Arch Reservation is on the coast of Oregon—Flattery Rocks, Quillayute Needles and Copalis Rock on the Washington coast, Tern Island and Shell Keys on the coast of Louisiana.

In these Federal Reservations the warden is elected and appointed by the executive, the salary nominal, but the real compensation is paid by the National Association.

The Federal Government owns no land in the 13 original states nor any in Texas. Here it can be secured only by legislative act or purchase.

Pennsylvania has adopted the game refuge plan. This does not shut out man from occupation, but makes shooting within its limits illegal at any time of year.

The educational work has been very largely extended the last year. Six new educational leaflets have been issued (Kill deer Bluebird, Red-winged Blackbirds, Baltimore Oriole, Indigo Bunting, Purple Finch. Special ones in February, April. In June, Wood Duck, August and Flocking Time as "Specials"); 608,050 leaflets, making 2,320,450 pages, have been issued and circulated. 15,440 reports, 266,047 colored plates and 244,000 outlines of birds for children to color have also been distributed.

1. "We stand for the rights of our fellow citizens, the wild birds and animals and demand just and uniform laws for their protection and also for their rigid enforcement.

2. For civil service in appointment of game wardens.

3. Emphatically for abolition of spring shooting of any kind, on the ground that it the season for rapid decrease of many species of birds.

4. We recommend short open season and small bag limit, and close season when necessary for recuperation of the species.

5. Recommend game license.

6. Prohibition of cold storage of game of any kind.

7. Federal protection for all migratory birds as it is practically impossible to secure uniform state legislation to prevent the disappearance of several species now known to be on verge of extinction.

8. We urge enlargement of the Biology Survey on the ground that the information furnished by the bureau is absolutely necessary for the farmers of our country, and so urge increased appropriation for its use."

Experts tell us $800,000,000 is the sum lost to us annually by rodent and insect pests. Could a greater plea than this be urged for the work of the society?

Our membership is still under 1,000. It is not only for the financial help that we desire to increase the membership, but because each member is a new center from which effective work may grow.

Vermont has been favored with a director on the board since the incorporation of the society, an honor, when one considers this board is limited by the law of the state which is in legal headquarters, and many states must always be without representation.

Circumstances obliged me to resign after having served but one year of my second term, but Vermont still has a director, Mr. Carlton D. Howe having been elected to the vacancy. He will need the hearty cooperation of every member of the Bird Club in educational lines, and it may be to uphold his hands in more strenuous times, should adverse sentiment assail our legislative halls as it did last year. When a right understanding of the true value of our bird life to the welfare of our country is universal, we shall not need to fear the enactment of unwise laws, and we each have a duty to hasten this happy time, by untiring effort into which we must put mind and heart.

Mr. Dutcher quotes this pertinent paragraph from Phillips Brooks:

"It means something that, in the disorders of thought and feeling, so many men are fleeing to the study of ordinary nature, and it is rest and comfort. Whatever men are feeling, the seasons come and go. Whatever men are doubting, the rock is firm under their feet, and the steadfast stars pass in their course overhead. Men who dare count on nothing else, may still count on the tree's blossoming and the grape's coloring. It is good for a man perplexed and lost among many thoughts to come into closer intercourse with nature, and to learn her ways and to catch her spirit. It is no fancy to believe that if the children of this generation are taught a great deal more than we used to be taught of nature, and the ways of God in nature, they will be provided with the material for far happier, healthier and less perplexed and anxious lives than most of us are living."

Dr. A. J. Allen in reviewing the President's Report, says in part, (January *Auk*, p. 102), although the association has a large endowment, its income is far too short for its needs, which as "its work broadens, necessarily, steadily increases. The work already accomplished in the short period of its existence is astonishing; the activities of its president, his resourcefulness in discovering new lines of usefulness, his promptness in action in cases of emergency, and his unselfish devotion to the great cause he has thus far so successfully promoted, are a sufficient warrant for a most urgent appeal that his hands be further strengthened by additional financial aid for the work that must necessarily devolve upon the Association from year to year as its work advances."

BIRD LIST, 1907, BRATTLEBORO AND VICINITY.

W. C. HORTON AND H. L. PIPER.

The list contains the names of 109 species of birds. The resident birds seen were chickadee, goldfinch, bluejay, red-breasted nuthatch,

white-breasted nuthatch, downy woodpecker, hairy woodpecker, red-tailed hawk, partridge, crow, screech owl, great horned owl, brown creeper and pileated woodpecker. This last is a rare bird hereabouts, a single one being seen by Mr. Horton last month. The winter visitors seen were northern shrike, goshawk, American crossbill, white-winged crossbill, siskin, snow bunting, tree sparrow and pine grosbeak. The list of arrivals from the south in the spring and the dates of their coming follows:

Feb. 20, junco; March 15, fox sparrow, robin; 17, bluebird, song sparrow; 22, bronzed grackle, red-winged blackbird; 23, phoebe; 26, Canada goose; 27, woodcock, kingfisher; 28, golden-crowned kinglet; 31, vesper sparrow, white-throated sparrow; April 4, hermit thrush, meadow lark, field sparrow; 5, flicker; 7, cedar waxwing; 10, Savannah sparrow; 11, ruby-crowned kinglet; 17, pine warbler; 20, tree swallow; 24, chipping sparrow; 25, purple finch; 28, barn swallow, bank swallow; May 5, black and white warbler, chewink, myrtle warbler; 7, chimney swift, eave swallow; 8, least flycatcher, black-throated green warbler, yellow warbler; 10, yellow-throated vireo, kingbird; 11, black-throated blue warbler, parula warbler, Wilson's thrush, Nashville warbler, oven bird, solitary vireo, yellow-bellied flycatcher, house wren; 12, winter wren, wood thrush; 13, warbling vireo; 14, blackburnian warbler, catbird, chestnut-sided warbler, rose-breasted grosbeak, scarlet tanager, Baltimore oriole, brown thrasher, redstart, spotted sandpiper, Cooper's hawk; 15, bobolink, Canadian warbler; 17, Wilson's warbler, northern water thrush; 18, white-rumped sandpiper, indigo bunting, olive-backed thrush, Alice's thrush, black-billed cuckoo, ruby throated hummingbird; 19, magnolia warbler, great crested flycatcher; June 5, blackpoll warbler.

Besides these, 15 other birds were seen by one or both observers at some time in the summer. As they were not seen until long after their probable arrival the dates when they were found are not given. They were wood pewee, green heron, grasshopper sparrow, bittern, marsh hawk, nighthawk; red-shouldered hawk, black duck, swamp sparrow, whip-poor-will, osprey, solitary sandpiper, sharp-shinned hawk, yellow-billed cuckoo and yellow bellied sapsucker.

BIRD LIST, 1907, RUTLAND AND VICINITY.

GEORGE L. KIRK.

January 3, great grey owl; 13, meadow lark, chickadee, blue jay, golden crowned kinglet, hairy woodpecker, ruffed grouse, snowflake; 18, white bellied nuthatch; 24, pine grosbeak; February 2, crow; 22,

tree sparrow, goldfinch; March 3, horned lark; 10, red-bellied nuthatch, pine siskin; 11, northern shrike; 17, bluebird, song sparrow, red shouldered hawk; 18, robin; 21, sparrow hawk; 22 junco, phoebe; 23, red-winged blackbird; 24, red-tailed hawk, meadow lark; 25 Canada goose; 26, bronzed grackle; 28, purple finch; 29, Savannah sparrow; 30, vesper sparrow; 31, flicker, rusty blackbird, cowbird; April 4, chipping sparrow; 5, fox sparrow; 7, winter wren; 9, redpoll, hermit turush; 14, marsh hawk; 15, golden eagle; 16, American merganser; 20, swamp sparrow; 21, bald eagle, herring gull, Cooper's hawk; 23, kingfisher; 28, field sparrow, barn swallow, Wilson thrush; 30 purple martin; May 1, cliff swallow, myrtle warbler; 3, cedar waxwing, white throated sparrow, yellow bellied sapsucker, spotted sandpiper; 5, osprey, yellow redpoll warbler; 8, chimney swift, king bird; 10, least flycatcher, black and white warbler; 11, chewink, brown thrasher, tree swallow, brown creeper; 12, yellow throated vireo, parula warbler, black-throated green warbler, black-throated blue warbler, Nashville warbler, ovenbird, yellow warbler; 14, warbling vireo, pine warbler, scarlet tanager, bobolink, Maryland yellow-throat, red-eyed vireo; 15, Baltimore oriole, chestnut-sided warbler, magnolia warbler, blackburnian warbler, redstart, white-crowned sparrow, catbird; 17, house wren, ruby-throated hummingbird; 19, olive backed thrush, solitary vireo, white rumped sandpiper, bank swallow, Canada warbler, great-crested flycatcher, rose-breasted grosbeak; 25, night hawk; 26, indigo bunting, wood pewee, black-billed cuckoo, Bartramiam sandpiper; 27, semi-palmated plover; long billed marsh wren; June 1, blackpoll warbler; 20, quail; September 3, solitary sandpiper, northern water thrush; October 24, Hudsonian chickadee; 27, ruddy duck, saw-whet owl. 111 species.

BIRD LIST, 1907, ST. JOHNSBURY AND VICINITY.

MISSES EMILY AND SUSAN CLARK.

January 1, chickadee, white-breated nuthatch; 6, American goldfinch; 24, pine grosbeak; 26, blue jay; February 11, redpoll; March 2, tree sparrow; prairie horned lark; 17, crow, American merganser; 23, bluebird, red-winged blackbird, robin; 29, song sparrow, junco, cowbird; 30, bronze grackle, downy woodpecker, phoebe, fox sparrow; April 5, brown creeper; 7, vesper sparrow, Savannah sparrow, red-bellied nuthatch; 13, northern shrike; 20, marsh hawk; 21, kingfisher; 25, sap-sucker; 27, chipping sparrow, flicker; 28, myrtle warbler, hermit thrush, tree swallow, rusty blackbird; 29, ruby crowned kinglet, white-throated sparrow; 30, purple finch; May 3, barn swallow; 5, spotted

sandpiper, field sparrow; 8, kingbird; 9, black and white warbler, red-eyed vireo; 10, least flycatcher, bank swallow, ruffed grouse; 13, chimney swift; 14, Baltimore oriole, hairy woodpecker, rose-breasted grosbeak, white crowned sparrow, warbling vireo, magnolia warbler, black-throated blue warbler, yellow warbler; 15, yellow-throated vireo, black-throated green warbler, bobolink, cliff swallow, redstart, chestnut-sided warbler, Nashville warbler, ovenbird, blue-headed vireo, woodcock, Wilson thrush; 18, parula warbler, Blackburnian warbler, solitary sandpiper; 19, white-eyed vireo, great crested flycatcher, Maryland yellow throat, olive sided flycatcher; 20, ruby-throated hummingbird, scarlet tanager; 24, indigo bunting; 26, Canadian warbler; 27, wood pewee, house wren, night hawk; June 2, Traill's flycatcher; 7, black poll warbler; 9, cedar bird; July 8, brown thrasher, red headed woodpecker; 11, olive backed thrush; August 29, great blue heron; September 1, osprey; October 6, winter wren. 90 species.

BIRD NOTES.

Mr. W. C. Horton of Brattleboro is investigating the distribution of purple martins in Vermont. Anyone who knows of a nesting colony will kindly report to him.

Mrs. E. B. Davenport of Brattleboro is collecting data as to the range of the wood thrush. She would be pleased to receive reports.

A member suggests the following as a new feature for future bulletins. Let any member who wishes to ask questions or who desires information in regard to bird life of our state, send such to the secretary of the club, who will have the questions printed together with the person's name and address in the bulletin. Then any one who is able to give the desired information is urged to write directly to the inquirer. If this meets with approval and sufficient questions are sent in, the plan will be adopted in the next issue of the bulletin.

Dr. and Mrs. L. H. Ross of Bennington observed on May 30, 1907, the common tern, *sterna hirundo*. Dr. Ross says: "This is the only record we know of a tern being observed in Vermont."

Miss Evalyn Darling of Woodstock contributes the following: Upon looking out of the window on the morning of Oct. 26, 1907, to some small spruces, I saw a warbler that was entirely new to me. The general color of it was olive gray, but what attracted my attention most was the distinct yellow wing patches that had a slightly darker tone in their center. The crown was yellow with white lines above the eyes, black below, and the dark throat was separated from the black eye patches by light lines. It staid about several hours, exhibiting no

fear, giving me ample opportunity for studying it. I identified the birds as the golden-winged warbler, *helminthophila chrysoptera.*

Mrs. Inez A. H. Griswold of St. Johnsbury describes thus her observation of hooded warblers. While driving on May 28, 1907, I noticed in some yellow birch saplings a pair of beautifully marked birds, the marks appealing most strongly to me being their black hoods, white marks on their tails and a flash of yellow as they moved in and out among the leaves feeding. I hastened to the Fairbank's Museum where with Miss Griffin's aid, I looked them up among the specimens and in the more complete key, and identified them beyond doubt as the hooded warbler, *Wilsonia mitrata.* I was much delighted to know that this bird had never before been reported in St. Johnsbury.

In the summer of 1906, a pair of Canadian warblers, *Wilsonia canadensis* had their nest near a rear window of our house, in a butternut branch. There they raised their young and sang their songs utterly oblivious of my daily observations of their daily life.

Mrs. Griswold reports also observing a flock of Canada jays, *perisorens canadensis*, feeding upon frozen apples in the vicinity of St. Johnsbury on Nov. 24, 1907.

Winter robins have been reported at Brattleboro, Proctor, and Essex Junction.

Mr. Horton of Brattleboro saw a song sparrow on Jan. 12, 1908. He reports also the kingfisher wintering in that town.

Mr. R. G. Brock of Wells River reports seeing a pair of red-headed woodpeckers, *melanerpes erythrocephalus*, on May 12, 1907. In the summer of 1907, a male chewing, *pipilo erythrophthadmus*, was seen, a rare bird in that vicinity. In March, 1907, as arctic three-toed woodpecker, *picoides arcticus*, was taken by a local taxidermist. In Rye-gate crows with strain of white feathers have been noticed for the past fifteen years.

Mr. H. L. Chapman of Windham has taken a photograph of a woodcock, *philohela minor*, sitting upon its nest. The photograph makes an attractive postcard.

The following persons were elected to membership at the winter meeting:

Miss Clara Barton .....Burlington.
Miss Marie Bolker .....108 N. Winooski Ave., Burlington.
Miss Jessie Butler .....Groton
Mr. S. D. Brush .....31 Church St., Burlington.

Mrs. Josephine S. Brown ..... Starksboro.
Mr. H. S. Chapman ..... Windham.
Mr. Byron Clark ..... Y. M. C. A., Burlington.
Mr. J. W. Collins ..... Westminster.
Mrs. Theron Colton ..... Montpelier.
Mr. G. Richmond Childs ..... South Barre.
Rev. H. A. Durfee ..... Winooski.
Miss Elizabeth Durfee ..... Winooski.
Miss Alice M. Durfee ..... Winooski.
Mrs. Annie C. Eaton ..... Prospect St., Burlington.
Mr. A. W. Eddy ..... Bristol
Mr. J. Wright Farrar ..... Burlington.
Dr. E. J. Foster ..... Waterbury Center.
Mrs. C. C. Gates ..... Hartland
Mr. E. L. Haynes ..... Readsboro.
Mrs. James Hartness ..... Springfield.
Miss Annie M. Holcomb ..... St. Albans.
Mrs. E. H. Jones ..... Windham.
Miss Mary Lawrence ..... Windham.
Miss Katherine Miles ..... Brattleboro.
Mrs. H. W. Moore ..... Woodstock.
Mrs. Zella Newell ..... Charlotte.
Mrs. Agnes Paxson ..... Lowell, Mass.
Miss Bessie Rust ..... 58 Pearl St., Burlington.
Mrs. Wayne M. Reed ..... Montpelier.
Mr. Willis M. Ross ..... Rutland.
Miss Carrie B. Sibley ..... North Montpelier.
Miss Blanche E. Sprague ..... Stamford
Miss Kate Stewart ..... Bristol
Miss Alice H. Sayles ..... Charlotte.
Miss Constance Upham ..... Windham.
Miss Mary E. Waterman ..... Williamstown.
Mr. Joseph Wellwood ..... Rutland.

The following persons were elected to membership at the summer meeting:

Mr. William Barclay, Jr. ..... Barre.
Mr. John Booth ..... Barre.
Mr. L. F. Breshmer ..... Barre.
Miss Mary E. Jennison ..... St. Albans.
Mr. Thomas J. Mercer ..... Barre.

Mr. Harry L. Piper.....Brattleboro.
Mr. W. H. Sabin.....Rutland.
Mr. J. S. Sheldon.....Rutland.
Miss Mary L. Sanford.....North Adams, Mass., R. F. D. No. 2.

The Club mourns the loss by death, of three members during the past year. Walter Rockwood Davis of Newton, Mass., died April 3, 1907; Mrs. Frances Belle Horton of Brattleboro, Vt., died August 18, 1907; Mrs. Isabel Paddock Carter of St. Johnsbury, Vt., died September 15, 1907.

THE SUMMER MEETING.

The sixth annual field meeting was held at Pownal, July 2 and 3, 1907. According to custom this meeting was held jointly with that of the Vermont Botanical Club.

At the business meeting nine new members were chosen.

It was voted to send copies of the Bulletin to the various periodicals devoted to ornithology, and to the public libraries in the State.

THE WINTER MEETING.

The seventh annual winter meeting of the Vermont Bird Club was held at the Williams Science Hall, University of Vermont, Burlington, January 17-18, 1908.

Fifteen papers were read, most of these papers in abstract or in full, are printed in this Bulletin. Aside from these there were presented notes, observations and records of interest by many members of the Club.

The usual business was transacted, officers were elected, and 37 new members were chosen.

A motion was made to unite the Vermont Bird Club and the Audubon Society of Vermont. After considerable discussion the motion was voted down.

The treasurer reported a balance of $5.62 in the treasury.

It was voted to hold the next summer meeting in conjunction with the meeting of the New England Federation of Natural History Societies, on Mt. Washington the first week of July. The details of the exact date and arrangements were left with Mr. John Ritchie, Jr., of Boston.

THE NEXT SUMMER MEETING ON MT. WASHINGTON.

(Reprinted from the Botanical Bulletin).

The Botanical and Bird Clubs by unanimous vote accepted the invitation of the officers of the New England Federation of Natural History Societies to join in a federation field-meeting next summer on Mt. Washington. Mr. John Ritchie, Jr., of Boston was present at the winter meeting and not only explained the plan in some detail but exhibited a beautiful series of lantern slides illustrating Mount Washington scenery and flora.

The Field Meeting will be on the general plan of those of the Appalachian Mountain Club, with the various conveniences that the excursion work of the Club has developed, including leaders, lunch boxes, paraffine paper, lists of the party, etc. The plan will be to spend the days in walks and collecting trips about the peaks, ravines, and "lawns" and the evenings and unpleasant mornings in the comparing and identification of specimens and the presentation of papers, one evening being devoted to societies of each of the New England States. To defray the costs of the Meeting, the Federation will ask of each one who attends a fee of $1.00.

The arrangements for board at the Summit House, where the regular rate is $5.00 per day, is this: One day, $4.00; two days, $7.50; three days, $10.50; four days, $13.00; five days, $15.00; six days, $16.50 and seven days, $17.50. For any wishing to remain longer, the rate will be then, $2.50 a day.

Arrangements will also be made to have up-tickets and down-tickets on the Mount Washington railway separate, so that any who wish to walk one way will not be obliged to pay the full double fare. The rate to Federation members will be $2.00 each way.

We are advised by Mr. Ritchie that it has been decided that the official convening of the Federation will occur on Wednesday evening, July 1 and the official closing on Wednesday, July 8. Friday, July 3, has been designated as Vermont Club Day, with its meeting in the evening.

It remains to be decided whether it may be most satisfactorily occupied by a presidential address, by a general "roll call" including an original contribution from our "poet laureate," or by serving Vermont sugar on snow from Tuckerman ravine. Whatever is decided will be announced later. The thing of chief importance as contributing to its success is that as many Vermonters as practicable go and that all who are going, so plan as to be present that day. Early application for places is desirable, since other parties have made application for the rooms not used by the Federation. Communicate directly with Mr. J. H. Emerton, Secretary of the Federation, 194 Clarendon St., Boston, Mass.

VERMONT BIRD CLUB

BULLETIN NOS. 4 & 5

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OFFICERS AND COMMITTEES.

President, Prof. G. H. Perkins, ... Burlington
Vice-President, Mr. G. H. Ross, ... Rutland
Secretary and Treasurer, Mr. Carlton D. Howe, Essex Junction

EXECUTIVE COMMITTEE.

Prof. J. W. Votey, ... Burlington
Mrs. Elizabeth B. Davenport, ... Brattleboro
Mrs. A. B. Morgan, ... Woodstock
Miss Delia I. Griffin, ... St. Johnsbury

PUBLICATION COMMITTEE.

G. H. Ross C. D. Howe H. G. Rugg

One copy of this Bulletin is sent to each member of the Club. Additional copies may be secured at ten cents each. Orders for these and other communications relative to the Bulletin should be addressed to Carlton D. Howe, Secretary, Vermont Bird Club, Essex Junction, Vt.

POSSIBILITIES OF THE VERMONT BIRD CLUB.

BY MRS. A. B. MORGAN.

With the idea of increasing the efficiency and usefulness of the Vermont Bird Club, I wish to suggest a few ideas for the consideration of its members.

Although a good number keep bird records and report any observations that are out of the ordinary, the broader and more general phases of bird study have not been attempted by any great number of members. Migration, songs, nesting habits, eggs, diet, ecology, photography in connection with bird study, comparative study of birds in different parts of the state, comparison with those of other New England states, preservation of bird skins, the making of collections and the use of collections, all of these subjects are capable of yielding a vast amount of interest and information, if the Executive Committee will formulate a plan and assign definite work to members.

I suggest that work on migration be done by four or five members in different parts of the state for comparison of both spring and fall dates, observation of weather conditions, feeding grounds, and routes.

Members of the Club who are musical might volunteer to study bird songs and give the results to the Club. The study of bird notes has been done very successfully by one of our members in the Hartland Club.

There is a wide field for the study of the nesting habits and eggs of birds. In this connection photography is of immense value. The taking of pictures showing the favorite haunts of species would be of interest, especially if some of the pictures were enlarged. Here again volunteers from the ranks of the camera fiends would be in order.

Personal observations on the diet of birds supplemented by the study of scientific reports would be a good work for some of our masculine members.

The work of comparative study of birds of different sections of the state already done successfully by certain members might well be extended to include the study of birds of the other New England states. This would mean putting ourselves in touch with noted bird students and with other State Bird Clubs, thereby enhancing our interest and knowledge. Speaking from a personal standpoint, the study of collections has done more to

help me in the identification of species and consequently in creating a live interest, than any other factor.

Why not use any available material for this work? There is a collection here at the University of Vermont that would be of immense value to many of us, if it were used to illustrate papers given by Club members, especially if these members were familiar with collections. Two years ago I borrowed a small collection of bird skins from the museum of the University and used them to good advantage in school, in our local Club, and with individuals just beginning bird study. I also used them to paint from, thus adding to my collection of bird paintings.

Some years ago I learned how to prepare birds skins and now have a collection of over fifty, all of these birds with the exception of two or three having met death from natural causes. People in Woodstock and in Hartland have been interested to send me specimens always wishing to know about the bird itself. It seems desirable that a Club member in each section should be able to prepare skins and so save them for purposes of study. A lesson demonstrating the skinning of a bird, the preservation and stuffing of the skin would be both helpful and practical.

When there are several State Club members in one town, they can band themselves together into a local organization and so serve as a centre for the promotion of interest in bird study. If as in Hartland, the members of the Botanical Club join hands with those of the Bird Club and embrace nature work in general, a most desirable result is effected. Whenever the Hartland Nature Club has made exhibits or holds meetings of a public character, it has invited the local members of the State Club and in so doing has formed their acquaintance and made them contributing factors to a good cause. I cannot emphasize too strongly the possibilities that lie in this one direction.

Of course the Bird Club stands for the protection and preservation of bird life, but so long as the women who are its members persist in wearing feathers on their hats, I do not feel that the Club has reached its highest possibilities in this line. The last time I appeared before you my hat was topped with a wonderful creation made up of guinea wings in their natural colors combined with others dyed in beautiful blue green. I knew all the time I wanted nothing of it but the milliner, in sweetest tones, convinced me that it was the only thing she had that preserved the color harmony of my attire. She succeeded in accomplishing her purpose for the moment, but she effectually

cured me of wearing feathers of any description. From my experiences I believe there are no compromises to be made with the milliners and the influence of decking oneself even with guinea feathers is such as to diminish and almost nullify the very principle for which we as members of the Vermont Bird Club stand. You may think I have taken a radical position, but remember that I am merely suggesting possibilities, you are as free as the birds of the air to accept or reject them.

A RARE BIRD VISITOR.

(The Connecticut Warbler, *Oporornis Agilis.*)

BY DELIA I. GRIFFIN.

On September 1, 1908, Prof. Henry Fairbanks of St. Johnsbury, brought to the Fairbanks Museum an unusual visitor in this locality. It was an olive-green bird, slender of shape and with delicate bill. Its identity puzzled this man who has studied Vermont birds with both gun and field glass for a half century. We took it to the bird exhibits in the Museum and studied and compared. A warbler it plainly was, but absence of any distinctive coloring made it exceedingly difficult of identification. Finally we looked at a Museum specimen and at the bird in hand, questioning, "Can it really be?" Then we packed the bird up and sent it to Mr. W. W. Cooke of the Biological Survey in Washington with a letter of full explanation in regard to its finding, how the first member of the family astir in the morning found the little dead thing on the piazza floor, every indication pointing to its having flown against a window and so been killed.

We made this letter most humble as well, for had we not come in contact with Mr. Cooke before, regarding dates of this same warbler?

The response to that letter certainly did our hearts good, for Mr. Cooke wrote, "It is the Connecticut Warbler as I suppose you had suspected and I want to congratulate you on the record, for it is probably the second sure record for Vermont and not only the most northern record in that state but the most northern for the whole of New England.

It will be of interest to the members of the Vermont Bird Club to know that this warbler has been reported to the Museum as being in St. Johnsbury on the following dates, nearly every

report having been made by the Misses Susan and Emily Clark,—June 9, 1901, May 18, 1902, May 16, 1903, May 18, 1905, May 23, 1906, Sept. 1, 1908.

The following extract from a letter of Mr. W. E. Balch, written Dec. 17, 1908, is also of interest in this connection, "I have just found the date, or note, referring to the Connecticut Warbler that you have at the Museum. I shot it Sept. 14, 1905 in some low willows on the brook just below my place here in Lunenburg. Do not remember as I told you that I saw another one the past season here, the first week in September, but I had neither my gun nor my camera so I have no further proof, but as I watched it some time there was no mistake."

THE EVENING GROSBEAK.

Cocothraustes Vespertinus.

BY MRS. C. V. H. COAN.

On February 21, 1909, two Evening Grosbeaks, came into a box elder tree near my window. They seemed very fearless and remained in the tree feeding on the seeds a sufficient length of time so that there was no room left for doubt as to their identity, though it did seem too good to be true that these beautiful birds which are rarely seen in the eastern part of the United States should suddenly appear in Vermont. The birds stayed about different trees in the neighborhood for several hours. A friend to whom I telephoned, Mr. G. W. Kirk, came out and observed them also. Previous to this, on February 12, a strange bird which I feel sure was the female of this species came into the same tree. This bird lacked the brilliancy of the two which appeared later, but possessed the same general characteristics and in every way corresponded exactly to the description of the female given in Chapman's Birds of Eastern North America.

Later, with several other people, I saw small flocks of Evening Grosbeaks in different parts of the city, being observed until March 14. At one time I counted nine on the same tree. So far as I am aware, this is the first record of the Evening Grosbeak in Rutland. There is, I believe, a record of their appearance in the vicinity of Burlington in 1890.

MY SECOND ATTEMPT TO COLONIZE THE PURPLE MARTIN.

BY WILLIAM C. HORTON.

Last spring I again tried to re-establish the colony of Purple Martins which once thrived in my bird houses in Brattleboro, but the experiment was as complete a failure, as far as I can learn, as was my attempt the year previous. In 1907 I tried to raise Purple Martins by putting a setting of eggs, secured from J. Warren Jacobs, Waynesburg, Pa., under the Tree Swallows then nesting in my bird houses. This proved a complete failure as told in the last Bulletin of the Club. Last year Mr. Jacobs kindly sent me two pair of yearling martins from his large colony, using every precaution to have them arrive safely. Although everything that I could think of was done to insure their staying in my bird houses, they flew away and did not return.

Mr. Jacobs selected two pair of birds that had already mated and were beginning to build their nests in his bird houses. They were shipped by express in a commodious box with food and water and arrived in Brattleboro in apparently good condition after their journey of 500 miles or more.

My bird houses had been prepared for their occupancy by a thorough cleaning and a screen door had been arranged over the entrance to their home to keep them in a short time until they had become used to their surroundings. I placed the birds in the bird house about 3 o'clock on the afternoon of their arrival. They were then strong and vigorous, fighting some among themselves at first. I had provided an abundant supply of insect food in the house, not knowing positively that they would eat in this manner as their habit is to take food on the wing.

The following morning I went out at 3.40 o'clock, just as the other birds were beginning to sing, and pulled the string that worked the screen door. It fell to the ground noiselessly, not in the least disturbing the martins. Secreting myself where they could not see me, I began to watch for their appearance. A few minutes after 4 o'clock one of the martins, a male, went out of the door of his new home like a bullet, and without stopping to look about him went across a small pond and out of sight. I was uncertain whether the bird went into the woods on the opposite side of the pond or continued on a long flight as the habit

of the martin is to fly with a downward swoop and then rise to a high altitude.

Three minutes later another martin, also a mae, left the house with the same speed and lack of ceremony.

OTHER MARTIN COLONIES.

BY W. C. HORTON.

The questions I asked last year through the Bulletin about the Purple Martin were answered very satisfactorily. I received a report from Mr. C. D. Howe, saying there was a colony at Essex Junction and Burlington.

Mrs. Alice S. Brown of Starksboro reported a colony in that town, Ferrisburgh, Middlebury, North Hero, and Burlington. Nelly Hart Woodworth reported two colonies at St. Albans. Miss Susan E. Clark of St. Johnsbury reported a colony at Lyndonville.

From this information, I can plainly see that nearly all the Purple Martins are west of the Green Mountains in Vermont, only one colony being reported from the east side. This also shows that the martin migration northward to their summer home is undoubtedly up the west side of the mountains. If this is the fact I presume none will migrate this side of the state until more colonies are established east of the mountain range. I am of the opinion that the colony in Lyndonville crossed over there from some of the colonies on the west side of the northern part of the state.

I am informed that there were several colonies of Purple Martins nesting last summer in New England, by which it appears that they are increasing and may reach their normal number again, as before the great loss of martins in the year of 1903.

I have reports of colonies at Augusta, Oakdale, Smithfield Belgrade and other towns in Kennebec County, Maine. Also in Massachusetts, Rhode Island and Connecticut, and in the southern part of New Hampshire, the martins are returning slowly, taking up the old abandoned homes.

I again wish to renew my request as given in the last Bulletin, restricting reports to the east side of the state. Anyone who knows of a nesting colony of Purple Martins on the east side of the state will please report the same to the secretary of the Bird Club or to myself.

BIRD PHOTOGRAPHY.

BY FRANK S. HOAG.

In regard to photographing birds, I will try to tell something about the kind of camera to use and some of the ways and means of approaching birds in order to make good exposures.

Mr. Chapman states that if we are limited to the use of a single camera, it should be of the reflecting type. If limited to one lens, he recommends one with an eight inch focal length, its two components having each a focal length of fourteen inches. He uses bellows fifteen inches long, and 4x5 plates.

Mr. Lottridge recommends, in addition, a reversible back, falling front, swing back, and particularly a strong and steady platform. He recommends a long-focus lens, large because the center of the lens is then used, thus securing better work in less time. The long focus gives a large image with comparatively less distortion. Very light plate holders should not be used, because they will not stand sunlight. The tripod, if one is used, must be strong and stable. A tilting tripod top is of great value. An outfit sufficiently stable in every way is rather heavy, but it is the only one suitable for all around work. The use of the telephoto lens is very limited. It gives from 2 to 6 diameters magnification, but more time is required for exposure.

A camera with the best appliances is of no use unless one can get within photographing range of the birds under fairly good conditions for making exposures. To accomplish this end, blinds which can be set up in favorable locations and occupied comfortably for hours at a time, seem to be an absolute necessity. If one wishes a blind that can be ready for use at any time, it should be of a kind easily transportable, inconspicuous as possible, and simple enough to be erected quickly. It need not necessarily be like some object in nature, but it is well to have it disguised with bushes or vines. Immovability when erected is the chief virtue of a good blind for any movement of it will make birds suspicious. The blind that Mr. Chapman uses is made of a leaf-green umbrella having a metal tube handle with a ventilating hole in the top; two other metal tubes of the same length as the umbrella handle; a piece of denim, 6x10 feet, sand or earth colored, dyed leaf-green at the top for about one third of its width and fading gradually to its original color at about the middle. The ends are joined and sewed together for a short distance at the top around which a strong cord is run for the purpose of drawing the top together sufficiently for it to hang on the

umbrella. The cord is long enough to serve as a guy rope. It is well in such a blind to run belts of braid about the covering, sewing them to it at intervals, thus forming loops into which when desired, reeds or branches may be thrust.

I have never used blinds myself in the little bird photography that I have done. I have always placed the camera on a tripod, focused it upon the nest of the bird to be photographed and made the exposure by springing the shutter from a distance, when the bird returned to the nest, by means of a string attached to a simple trigger. This released a lever upon which a stretched rubber band was drawing. I have read of an arrangement by which the shutter could be sprung by the attraction of the release lever of a magnet. The magnet was placed beneath the lever and connected with a small battery by means of wire conductors. Closing the circuit at the battery would cause the magnet to draw the levers down, thus releasing the shutter. I have also seen a picture of a camera equipped with a long rubber tube with a bicycle pump for forcing air through it.

Photographing birds is not at all easy work. It requires time, patience and ingenuity, but the results attained are well worth the effort.

BIRD NOTES FROM ST. JOHNSBURY.

BY INEZ A. HOWE.

The summer of 1909 to me was the richest in rare bird finds of any of the sixteen seasons that I have made a study of these feathered friends of ours.

It never was my good fortune to hear the song of the White-crowned Sparrow, *zonotrichia leucophrys*, until on May 17, 1909. I have watched the spring and autumn migrants for many years but never saw or heard one sing before. In driving from St. Johnsbury East to Concord on the date mentioned, about 5 o'clock in the afternoon, I saw flocks of these birds in company with Canadian Warblers, *sylvania canadensis*, when suddenly a plump male White-crowned Sparrow alighted upon a fence and poured forth his soul in an ecstasy of delight, only rivaled by his cousin, the Song Sparrow.

On May 29, while driving through St. Johnsbury Center, I discovered perched on a telegraph wire a peculiar bluish bird which regaled us with a sweet song unmistakably the song of a

warbler. With the aid of Chapman's Hand Book and a powerful field glass, we identified the bird as the Caerulean Warbler, *dendroica caerulea*. There was a pair of them. They seemed weary from flight, and were pluming their feathers. We identified them beyond a doubt and verified our discovery by the mounted specimens at the Fairbank's Museum.

HARTLAND SPARROWS.

BY MRS. MARY B. GATES.

An extract of a paper read before the Hartland Nature Club.

Someone has said that the sparrows were like the poor in that we have them always with us. The sparrow family is the largest of our feathered friends containing 550 species, one seventh of all our birds, and is represented in all parts of the world, except the Australian regions. Of these North America claims no less than thirty-three genera and one hundred and eighty-nine species and sub-species. What is the reason for this large number of sparrows? Our president recently gave us a very interesting paper on Protective Coloration. Now, many members of this prolific family are clothed in dull brown and gray-streaked feathers which harmonize wonderfully in color with the grassy, bushy roadsides which they frequent. It may be that protective coloration causes them to be overlooked by their enemies. I often counted in October twenty-five or thirty sparrows quietly feeding on the lawn, and so quiet were they, if I had not been looking for them, they would have escaped my notice. There are members of this family however, which are noted for their exceptionally beautiful and striking plumage.

The Rose-breasted Grosbeak and Blue Grosbeak, Cardinal, Indigo, and Painted Bunting belong to this great family, and they are very bright plumaged, but not nearly so numerous as the more plainly clothed members. Others, the Juncos and Towhees, have their plumage unstreaked, but with masses of different colors on different portions of the body. In size none of the sparrows equal the robin, though a few come near it. The English Sparrow is about the average, twenty species being smaller, twenty larger, and about twenty like it in size. Their power of song is quite varied, some sing but little while others are noted songsters. The canary belongs to this family.

The sparrows are seed eating birds, although in nesting season they eat insects and feed them to their young. All the species have short conical bills with corners of the mouth abruptly bent downward. These strong bills are especially adapted for crushing seeds, and as it is the seeds of weeds upon which they feed, they do the farmers untold good. Dr. Henshaw estimates that the seed consumption of the sparrow family results in an annual saving of one per cent of the value of crops. Hence, the sparrows alone save the farmers $35,000,000 in one year. How are such facts obtained? By examination of birds' stomachs. If they eat pests, they are blessings, if they eat blessings they are pests. If you know what a bird eats, you know what he is.

Aside from the economic value of sparrows, there is another relation which these birds bear to us, the aesthetic, of which I shall now speak. To appreciate this value we must know the different birds, know them by their plumage, their form, their song.

I am sure that almost everyone knows the dear little Song Sparrow that helps to open the season of song in March, and his voice is one of the last to be heard in the fall. He is easily known by the stripes on his breast, and the one large spot in the center.

The Chipping Sparrow is very common, and perhaps the most domesticated of all. He is smaller than the Song Sparrow and has a chestnut crown and a white line over the eye. He is also a common visitor at our door and has been persuaded to come inside by crumbs placed just over the threshold. He has a simple little trill which answers for a song, but which really sounds more like the buzzing of a locust.

Soon after the Chippy leaves us in the fall, a similar bird but a larger sparrow makes his appearance coming from the north to spend the winter. This is the Tree Sparrow. He has a chestnut crown, two white bars across the wing and an indistinct black spot in the center of the breast. These birds live in the winter entirely upon weed seeds. It is estimated that each bird consumes about one fourth ounce a day. There were large flocks of them here last winter and for several weeks before they left for the north in April, we enjoyed their sweet little songs. They associate freely with the Juncos and do not hesitate to visit dooryards and even door steps.

The Vesper Sparrow is a ground living, streaky sparrow with the bend of the wing chestnut, and the outer tail feathers white which show distinctly as the bird flies ahead of you. His song is quite like the Song Sparrow, but finer and more plaintive. It

opens with one low note and is followed by two high ones; while the Song Sparrow usually begins with three notes all of a kind. Music is an important matter with the Vesper Sparrow, often singing continuously for half an hour. His vesper service may be heard at about sunset lasting through the twilight hours. He is often called the Grass Finch.

Another little sparrow that comes to us about the same time as the Vesper is the Field Sparrow. He is usually to be found in hill-side pastures. He resembles the Chippy in that he has a chestnut crown; but if you notice that his bill is flesh colored, not black, and that he has a whitish ring about the eye and light colored feet, we shall know at once that he is not a Chippy. How different his song, clear and sweet, and almost a whistle. I think it is unusual for them to come near the house, but saw them last spring on our lawn feeding with other sparrows.

A member of this family which I had the pleasure of seeing for the first time last May at our first out-door meeting is the Swamp Sparrow. He has a chestnut head. Nearly every author that I have consulted agrees that he is often mistaken for the Song Sparrow, which seems strange to me, as he has a gray unspotted breast, so very unlike the Song Sparrow. Another identifying mark which I noticed, although I do not find it mentioned in any bird book is the three white bars on the wing which instead of extending across the wing went lengthwise. I did not hear his song but Chapman says it is a sweet but rather monotonous tweet, tweet, tweet, repeated many times and sometimes running into a trill.

The sparrows that I have thus far mentioned are not conspicuous for their beauty, but the two which I shall now mention are very aristocratic looking birds, the White-crowned and White-throated Sparrows. The former is a beautiful large brownish sparrow with head striped black and white, three white and four black stripes. I wish we might claim him as a summer resident at least, but he is only a visitor, stopping with us a few weeks as he journeys to and from his northern home. His song is very sweet and plaintive which once heard is not easily forgotten. He makes several calls at our piazza every spring.

About the same size but not so striking a bird is the White-throated Sparrow or Peabody Bird. He makes his home with us through the summer. His head has two black and three white stripes, two of the white stripes being yellow in front; on the throat is a white patch, also there are two distinct white wing bars. They have nested many summers in the brush heaps where the pine trees have been cut. They have a very unusual song.

In Canada, they interpret it as "Sweet, Sweet Canada." In New England as "I, I Peabody, Peabody."

The Fox Sparrow, so called on account of his rusty, reddish brown coat resembling that of a fox, has a light breast heavily streaked with brown which causes him to look like a thrush. We can only claim him as a Hartland Sparrow for a short time in spring and fall. These birds scratch among the dead leaves for their food like a miniature hen. Their song is a clear and melodious carol.

The Savanna Sparrow is said by good authority to be found in Hartland, and I see no reason why it should not be here as it breeds from New Jersey and Missouri northward to the Hudson Bay. I do not know this bird, so have that pleasure to look forward to.

The last and least is the English Sparrow. In 1851 Brooklyn had a great pest in the form of inch worms which were destroying the shade trees. It was at this time that the English Sparrows were imported, it being hoped that they would destroy the worms thereby saving the trees. They accomplished their mission and for a time were made much of. When their true character become known scientific men in Washington took up the matter and after the fairest trials decided that not all the good they do can compensate for the damage done to the farmer's grain fields, to say nothing of their driving away much more useful and ornamental birds than themselves. Their chief mission in life seems to be to populate the earth. Their numbers are as the sands of the sea. To-day the English Sparrow is the best known and the most thoroughly despised bird in Hartland, as well as in all America.

WARBLER MIGRATION, 1908.

BY MRS. A. B. MORGAN.

It is quite possible that you may have pictured to yourselves the delight and joy that would come to you if you could see the birds of other regions than those with which you are familiar, but if that privilege has been denied you, it is a satisfaction to know that in your own state during the month of May it is possible to witness a flight of warblers that rivals, if not excels anything similar to it in the United States.

You have only to discover one of the favorite feeding grounds of warblers in order to enjoy this unusual and thrilling sight; then for a week or more you can study at close range these illusive and difficult denizens of the wood.

On the Billings estate in Woodstock such a feeding ground exists, and it is difficult to imagine a more ideal environment. On a little plateau to which winding paths lead, there is a lily pond surrounded by tall spruces. The almost tropical aspect of this spot was rendered more so by the brilliantly hued warblers that I saw there last May (1909), in greater numbers than I had ever seen before anywhere.

Black-throated Green and Magnolia Warblers poised and darted from these beautiful branches of the Norway spruces, looking like bits of gold amid the green, pausing long enough in their search for food to sing ecstatically or to twit a note of alarm when the intruder approached. These two species were the most numerous, the tamest and the busiest. The Blackburnians which one always sees with a thrill of delight were there, not in twos or threes but in fives and tens, and the Parulas, shy and distant as they always are, added their jewel-like beauty to the scene. The Black and White, Black-throated Blue and Myrtle kept more in the background, but were very numerous, while the Blackpoll, Yellow Palm, Cape May, Bay-breasted, and Nashville were few in number but rare enough to receive much attention. Among the number was a stranger, a bird with markings of yellow and black about the head and with chestnut rump, this was thought to be the Prairie Warbler. The Yellow Palm Warbler was recorded as early as April 20 and was still here May 5. The Cape May is a rarely beautiful bird, its yellow throat and chestnut eye patch, as well as its white wing bars identifying it, but unlike many warblers, it does not linger during migration more than a day or two. It was interesting to note how certain species staid on from day to day while others, restless with the call of their northern homes, sped swiftly on. In a little more than a weeks time the spruces were silent save for the whisper of the winds or for the twitter of a bird that deemed their branches a fit spot for its summer home.

WARBLERS RECORDED BY THE HARTLAND NATURE CLUB, 1908.

Black and White, April 28; Nashville, May 6; Tennessee, Sept. 28; Parula, May 4; Cape May, May 4; Summer, May 3; Black-throated Blue, May 4; Black-throated Green, May 1; Myrtle, April 30; Magnolia, May 4; Chestnut-sided, May 17;

Bay-breasted, May 7; Blackpoll, May 4; Blackburnian, May 4; Maryland Yellow Throat, May 15; Yellow Palm, April 20; Pine, April 30; Red Start, May 13; Oven Bird, May 7; Canadian, May 10.

SOME IDEAL AND UNIQUE NESTING PLACES.

BY SARA E. GRAVES.

Among the fascinations of bird nesting is the occasional discovery of a freakish selection of building sites. It is well known that birds return year after year to former haunts, and often build in the exact spot occupied on previous years. Robin and Phoebe are, perhaps, the most common examples. A pair of phoebes built year after year on the end of a board nailed to the rafters of the sugar house. Each succeeding year a new nest was built within the old one, until like a pile of cups there seemed no room for another. In my interest I dislodged this six-storied structure, and was much gratified when phoebe returned and built another dwelling. This latter grew to the proportions of the former one before the sugar house itself was torn down.

Every year I place five pound butter boxes, with a small square hole in the corner, in the apple trees around the house; and I always have my tenants through the rearing of at least one brood. English Sparrows cannot fly into these as I arrange them, but they suit the Bluebirds exactly.

Bluebirds or Tree Swallows have occupied for many years one particular fence post in this neighborhood. The post is a large knotty stub, ten inches in diameter, hollow from top to bottom with three entrances, one from the top, one at the base, one from a protruding knot hole a foot or more from the base. T nest is quite at the bottom of the cavity.

The men of my family found a new kind of swallow in the barn; which they called "the bark swallow." A wide strip of bark had become loosened, but not broken from one of the rafters that hung down a half yard at least in length. Upon the smooth side of this the Barn Swallow had placed her nest, and raised her little ones almost to the state of self support. In due time the nest was brought in for my inspection, firmly attached to its foundation strip of bark. It was open as a Robin's nest and luxuriously upholstered with feathers.

A few years ago in a nearby wood where thrushes are abundant, a Veery selected an unusual site. Nine marsh maples had arranged themselves in a circle about as large as an ordinary bird cage. In this circle, on a foundation of last year's leaves, I discovered the thrush and her nestful of eggs.

The most remarkable selection for a nesting site in my observation was chosen by a Robin a few years ago. A horse rake was sheltered in an open shed; and when Robin came she preempted the seat of the rake and reared her young undiscovered by prowling cats or other enemies. Robin very obligingly renounced her claim to the rake before the farmer was ready for haying.

HOW TO DESTROY ENGLISH SPARROWS.

Attention is called to Farmer's Bulletin No. 383, United States Department of Agriculture, entitled, How to Destroy English Sparrows. Among the methods mentioned are destruction of nests, by concerted action of a community, trapping and poisoning. They may be trapped by a shallow box covered on one side by woven wire, placed over grain, lifted up and supported by a stick eighteen inches long in manner of a deadfall. A long cord attached to the upper end of the stick is pulled by the operator in a secluded place when a group of sparrows are eating the grain under the box. The box will fall more readily if a loose chip is placed between the end of the stick and the box.

Where the use of poison is not prohibited by law, it may be effectively used to reduce the number of sparrows. Of the different poisons tested, the most satisfactory is strychnia sulphate. It is easily prepared and acts quickly. Wheat has proved a good bait as well as an excellent vehicle for administrating the poison. The grain should be regularly supplied at the baiting stations until the birds have become accustomed to resort to the place. A good time to put it out is early in the morning, as the birds are sure to be hungry for breakfast. The capacity of a sparrow's stomach and crop is about 30 kernels of wheat. In deciding the amount of poisoned wheat to put out at one time, it is well to estimate the number of sparrows and to allow about twenty kernels for each sparrow. Although two kernels of wheat coated with the solution have been known to kill a sparrow, six or seven kernels are required to insure fatal results. Only enough poison should be put out as is likely to be eaten in one day, as exposure

to moisture reduces its virulence. Furthermore, sparrows that take less than a fatal quantity, or that become frightened by the death of their comrades, will forsake a feeding place, if poison is kept there constantly. It is better, therefore to supply unpoisoned wheat after each poisoning until the birds have recovered confidence. An important advantage of having several feeding grounds is that they may be used in rotation, the sparrows forgetting their fear of one while the others in turn are receiving poison.

A poison mixture that has proved very effective is prepared as follows: Put one eight ounce of strychnia sulphate into three fourths of a gill of hot water and boil until dissolved. Moisten one and one-half teaspoonfuls of starch with a few drops of cold water, add it to the poison solution, and heat until the starch thickens. Pour the hot poisoned starch solution over one quart of wheat and stir until every kernel is coated. Small kerneled wheat sold as poultry food, if reasonably clean, is preferable to first quality grain, being cheaper and more easily eaten by the sparrows. A two quart glass fruit jar is a good vessel to mix in, as it is easily shaken and allows the condition of the contents to be seen. If the coated wheat be spread thinly on a hard flat surface, it will be dry enough for use in a short time. It should be dried thoroughly if it is to be put into jars and kept for future use. Dishes employed in preparing the poison may be safely washed.

The poisoned wheat should be well scattered. A few sparrows get only enough strychnine to paralyze them. Therefore visit the feeding places often. Remove dead birds often to avoid exciting suspicions of the others. The best time to put out the poison is just after a snowstorm. The feeding place should be cleared of snow and poison and laid out early in the morning. Poison should be placed in secluded places safe from poultry, doves, and other birds. Wheat not eaten by sparrows will become harmless after a few rains.

This Bulletin may be obtained free of cost upon application to the Biological Survey, U. S. Dept. of Agriculture, Washington, D. C.

BIRD LISTS.

Migration lists for the year 1909 were received from the following members Mr. G. L. Kirk, Mr. G. H. Ross, and Mr. and Mrs. C. H. V. Coan of Rutland; Dr. L. H. Ross of Bennington; Miss Marion Bole of West Barnet; Misses Susan and

Emily Clark of St. Johnsbury; The Hartland Nature Club of Hartland; Miss Mary L. Sanford of Stamford. We would like to print all of these lists but space does not permit. Mr. Kirk's list includes 137 species, and Dr. Ross' 136.

BIRD LIST, 1909, RUTLAND AND VICINITY.

BY GEORGE L. KIRK.

The list is printed in the order in which the birds were seen, figures refer to the day of the month.

January 1, chickadee, hairy woodpecker, downy woodpecker; 10, red-bellied nuthatch, crow, blue jay, redpoll, ruffed grouse; 21, great horned owl; 24, American merganser; February 6, pine siskin, red crossbill, golden-crowned kinglet; 21, evening grosbeak, prairie horned lark; 27, white-bellied nuthatch, white winged crossbill; March 14, snowflake, brown creeper; 18, red-shouldered hawk; 19, bluebird, sparrow hawk; 20, northern shrike; 21, pileated woodpecker; 24, red-winged blackbird; song sparrow; 28, robin; 30, meadow lark, red-tailed hawk; April 2, bronzed grackle; 6, phoebe, fox sparrow; 10, hermit thrush; 11, flicker,winter wren, yellow bellied sapsucker, vesper sparrow; 12, rusty blackbird, black duck; 13, Savanna sparrow, wood duck, tree sparrow; 18, ruby-crowned kinglet, chipping sparrow, white-throated sparrow, Wilson's snipe; 21, kingfisher, yellow redpoll warbler; 22, cowbird, vesper sparrow; 27, purple martin, Wilson thrush; May 2, Cooper's hawk, loon, whistler duck, blue heron, herring gull, bald eagle, spotted sandpiper, myrtle warbler, tree swallow, osprey, pied-billed grebe; 4, catbird, American bittern, swamp sparrow, barn swallow, chimney swift, brown thrasher; 6, long-eared owl, king bird, cliff swallow, black and white warbler; 7, black-throated-blue warbler; black-throated-green warbler, bobolink, bank swallow; 8, white-crowned sparrow, yellow warbler, Maryland yellow throat, solitary vireo, chewink; 9, Baltimore oriole, chestnut-sided warbler, blackburnian warbler, parula warbler, Nashville warbler, oven bird, redstart, least flycatcher, marsh hawk; 10, warbling vireo; 12, solitary sandpiper, Wilson's warbler; water thrush; 14, magnolia warbler, woodcock, olive-backed thrush; 16, grasshopper sparrow, rose-breasted grosbeak, red-eyed vireo, great-crested flycatcher, wood thrush; 18, bay-breasted warbler, yellow-throated vireo; 19, Traill's flycatcher, humming bird, scarlet tanager, olive-sided flycatcher, indigo bunting; 20, Canadian warbler, house wren; 26, wood pewee, night hawk; 28, pine warbler; 31, blackpoll warbler, cedar waxwing, mourning dove; June 8,

black-billed cuckoo; 19, red-headed woodpecker; July 5, green heron, long-billed marsh wren, Florida galinule, Virginia rail; Sept. 20, sharp-shinned hawk; 26, Canadian ruffed grouse; bluebill duck, American scoter, horned grebe, white-winged coot; 25, pintail duck, greater yellow legs, surf scoter; 27, Canada goose; 30, red-breasted merganser, pipit, screech owl; Nov. 10, Holboels grebe.

BIRD LIST, 1909, BENNINGTON AND VICINITY.

BY DR. L. H. ROSS.

Dr. Ross was assisted by Mrs. Ross, and Mr. Charles Hitchcock.

January 1, tree sparrow, red-breasted nuthatch, pine siskin, goldfinch, crow, chickadee, ruffed grouse; 2, blue jay; 4, downy woodpecker; 6, white-breasted nuthatch, meadow lark; 20, snow bunting, redpoll; Feb. 8, golden-crowned kinglet, pileated woodpecker; 11, white-winged crossbill; 12, northern shrike, kingfisher; 18, junco; 21, red winged blackbird; 27, bluebird; 28, white-throated sparrow, bronzed grackle; March 1, song sparrow; 4, great-horned owl; 8, robin; 10, red-tailed hawk; 18, horned lark; 20, sparrow hawk; 24, marsh hawk; 28, Am. merganser; April 1, evening grosbeak, swamp sparrow; 2, hermit thrush; 4, phoebe, fox sparrow, vesper sparrow, red-shouldered hawk, winter wren, brown creeper, cowbird; 6, Savanna sparrow; 8, flicker; 9, chipping sparrow; 11, yellow-bellied sapsucker; 13, purple finch; 16, tree swallow; 17, hairy woodpecker; 18, palm warbler, ruby-crowned kinglet; 19, field sparrow; 23, white-eyed vireo; 30, osprey; May 2, cedar waxwing; 3, greater yellow legs, barn swallow, spotted sandpiper; 4, myrtle warbler; 5, warbling vireo, least flycatcher; 6, chimney swift, bobolink; 7, black and white warbler, kingbird, yellow warbler, cliff swallow, white-crowned sparrow, blackburnian warbler; 8, oven bird, olive-backed thrush, wood thrush, black-throated blue warbler, black-throated green warbler, Baltimore oriole, Maryland yellow-throat, Wilson's thrush, catbird, rusty blackbird; 9, brown thrasher, chewink, Wilson's black-cap warbler, chestnut-sided warbler, parula warbler, red-eyed vireo; 11, Am. bittern; 12, redstart, bank swallow, Nashville warbler, magnolia warbler; 14, rose-breasted grosbeak, rough-winged swallow, water thrush, solitary sandpiper; 15, indigo bunting, wood pewee; blue-headed vireo; 16, prairie-horned lark, black-poll warbler; 17, humming bird; 18, scarlet tanager; 19, alder flycatcher, bay-breast-

ed warbler, Canadian warbler; 21, quail; 23, black-crowned night heron, yellow-throated vireo, least sandpiper; 25, woodcock; 26, black-billed cuckoo; 28, grasshopper sparrow, Henslow's sparrow; 30, sharp-shinned hawk; June 2,whippoorwill; 30, broad-winged hawk; July 5, house wren; 9, yellow-billed cuckoo, pine warbler; 11, red-headed woodpecker; 12, upland plover; August 2, green heron; 3, pied-billed grebe; 4, blue heron; 11, Cooper's hawk; 12, Virginia rail; 24, night hawk; September 12, lesser yellow legs, pigeon hawk; 18, mallard, screech owl; October 29, barn owl, long eared owl; 30, American scoter; November 7, northern raven; 22, black duck.

Dr. Ross appends the following as unusual or exceptional observations: meadow larks remaining all winter; white-winged crossbills in Bennington; a flock of over thirty evening grosbeaks remaining from April 1 to 20; a black-crowned night heron, one individual observed on three different days; Henslow's sparrow, a pair observed many times, but unable to locate nest; barn owl, one shot; American scoter, seven were shot on Lake Paran, North Bennington and some were mounted; northern raven, one shot by Mr. Ira Adams of North Bennington, has been mounted and is now owned by him.

BIRD NOTES.

In a letter to the secretary, Mr. F. G. Floyd of West Roxbury writes: "You may be interested to learn of a rare bird we detected in your state two years ago, (1908), at Wilmington just below the peak of Haystack Mountain and at the shore of the pond there. I observed a small number of Cerulean Warblers while alone on a botanical trip. At that time the bird was not known to me but the blue bird of small size assured me it was something uncommon. The next day my wife accompanied me to the same locality and we were fortunate in observing and getting a good close view with our glasses of another individual that Mrs. Floyd identified as that species. This bird is not listed in Chapman's Warblers from Vermont. When we discovered that we were not so sure of our identification and particularly as our old friend, Mr. Purdie, a veteran bird man, was rather inclined to distrust it. I was considerably surprised when on casually looking over the list of birds in Thompson's Vermont, (1853), to find this bird given as a Vermont bird. I shall be pleased to know if you have any other records of it in your state.

The following is an extract from a letter from Mrs. Alice Hall Walter of Providence, R. I.: "In looking over A Preliminary List of Vermont Birds, (1901), I find the Tufted Titmouse, *parus bicolor*, as a 'not common resident.' Could you give me the records of its actual occurrence in Vermont, as no doubt it is a rare species so far north, and has been found in few localities. Being Vermonters by birth Mr. Walter and myself are greatly interested in your valuable list, the data of which we have tabulated for ready reference."

Mrs. Alice S. Brown writes that an albino English Sparrow was raised on her premises. It had red eyes and every feather was pure white. It was a great curiosity and a conspicuous mark, as it remained about the buildings two months before it disappeared. A meadow lark came to Mrs. Brown's lunch table on Feb. 4, 1909.

Mr. J. Henry Potter of West Rutland speaks of the beneficial effect of posting large tracts of land in his vicinity, some 7,000 acres in all. Birds as well as game have increased on these tracts; The posting of land should be encouraged. It saves many useful birds from the hands of hunters, as many hunters are in the habit of shooting small birds while looking for larger game. Mr. Potter reports seeing a robin on Jan. 6, 1910, and hearing a purple finch sing on Christmas Day.

Mrs. Nelly Hart Woodworth of St. Albans added two new birds to her list in 1908. The American Three-toed Woodpecker, *picoides americanus*. She studied the bird closely with field glasses and is sure of her identification, distinguishing it from the Arctic Three-toed Woodpecker. The other bird was Lincoln's Sparrow, *melospiza lincolni*, observed by her at different times during the summer. She describes its song as "a regular theme repeated over and over reminding one of the purple finch and also of the wren, but unlike either."

Mr. G. H. Ross of Rutland has also both of these birds on his list.

Mr. George L. Kirk of Rutland shot a Ringed-neck Duck, *caythya collaris*, at North Ferrisburg on Lake Champlain, Nov. 9, 1908. In fifteen years duck hunting on the lake he has never before seen a bird of this species which is not common anywhere. It is not given in Perkins' and Howe's List of Vermont Birds.

Another bird to be added to this list is the King Eider Duck, *somateria spectabilis*, shot by Mr. Kirk at North Ferr burg, November, 1904. The specimen is now mounted at the Geological Hall, Albany, N. Y.

Dr. L. H. Ross of Bennington reports seeing the Common Murre, *uria triole*, and also the Piping Plover, *aegialitis meloda*. Dr. Ross also reports a wintering robin, and wintering meadow larks, seeing twelve of the latter on Jan. 12, 1909.

A pair of Blue Jays built their nest and reared their young undisturbed in a balsam tree within two feet of the sidewalk and near the main entrance of the Baptist church at Essex Junction.

A pair of Scarlet Tanagers nested last summer in an oak tree on a lawn in the village of Essex Junction.

Mourning Doves have been seen by Mr. C. D. Howe during the past three summers in the towns of Colchester and Essex.

In June, 1907, Mr. Howe found a Robin's nest placed on the ground with its top flush with the surface.

In the summer of 1909, a King Bird's nest was observed containing four eggs, attached to an eaves spout, directly over the entrance of the church at Lake Willoughby.

Mrs. H. A. Hall of Rutland has sent to the secretary photographs of Bluebirds and nest, in a starch box covered with birch bark, and nailed to the side of the house. Why may not other members emulate her example in sending photographs of birds to be kept in the posesssion of the Club?

Mr. Hall in speaking of means for protecting birds from their enemies suggests that a tax be placed upon cats as they are known to destroy many birds, and also as it is now well understood that cats carry disease from one person to another. He also suggests that a bounty be placed upon the heads of English Sparrows as a means of increasing useful song birds.

Miss Marion Bole of West Barnet reports the appearance of the Wood Thrush in that town.

Mr. Carlton D. Howe is collecting information in regard to early bird students in Vermont, early bird lists, collections of birds eggs, skins, and mounted specimens, and records about birds occurring before the organization of the Vermont Bird Club. He appeals for the assistance of the members of the Club to this end. Many lists of birds have been printed in local newspapers throughout the state. He wishes aid in locating such. Any information along these lines will be greatly appreciated.

It has been suggested by several members that a life membership be established upon the payment of a certain amount, such fees to be used as an endowment. The sums suggested for life membership are $10, $12, and $15. Some action will be taken upon this matter at the winter meeting.

No Bulletin was issued for the year 1909. The 1909 material is combined with this Bulletin. Therefore, this Bulletin is numbered 4 and 5.

The winter meeting of 1909 was held at Middlebury, Jan. 22 and 23; the summer meeting was held in Burlington and on Lake Champlain including Ausable Chasm, July 6 and 7. The winter meeting of 1910 was held in Burlington, Jan. 21 and 22, the summer meeting at Woodstock, July 4, 5, and 6.

THE AMERICAN BIRD BANDING ASSOCIATION.

On December 8, 1909, there was organized in New York City the American Bird Banding Association, the object of which is "the banding of birds and the recording of accurate data on their movements." The formation of this society was the outgrowth of a movement which was started in 1908 by the New Haven, Connecticut Bird Club, having in mind the study of the movements and migrations of wild birds by means of metal bands. These bands bear an address and a serial number, the inscription reading "NOTIFY THE AUK, NEW YORK." When a bird is banded a record is made of the number of the band, and the species of the bird on which it is used, as well as the date and place of banding. Should this bird ever fall into anyone's hands, it is hoped that as a result of the inscription on the band a notification will be sent to the AUK, together with a record of the number. In this way accurate data may be obtained of the movements of *individual* birds, a thing which is not possible by the ordinary methods of studying migration. The bands are distributed to interested persons throughout the country, who use them as opportunity offers, this being principally of course, upon young birds which have not yet left the nest.

Most encouraging results have already been obtained. The work has been extended until now it is national in character. It is hoped now that enough interested persons will become members so that their dues of one dollar a year will supply the needed funds. An appeal is therefore made to all persons who are interested in birds, and especially in that great mystery of bird life—migration—to aid in the solution of its problems by joining this Association. Members will receive free a copy of the annual report of the Executive Committee, and such other literature as may be issued.

For the benefit of any who may fear that the prosecution of this work may be detrimental to bird life, it should be stated that the Association is thoroughly in sympathy with the conservative efforts of the Audubon Societies of this country. The shooting of birds for the recovery of the bands is no way a part of the scheme. As a guarantee of good faith it may mentioned that the present membership includes not only many of the foremost members of the American Ornithologists' Union but also leaders of the Audubon movement in America.

Applications for membership and remittances of dues should be sent to Mr. C. J. Pennock, Kennett Square, Pa. Persons interested in the banding and caring to assist in this part of the work should address Dr. Leon J. Cole, College of Agriculture, University of Wisconsin, Madison, Wis.

The secretary of the Bird Club distributed some of these bands at the last winter meeting, and will gladly furnish such to other members who wish to use them. He will be pleased to answer questions in regard to the matter.

LIST OF ACTIVE MEMBERS OF THE VERMONT BIRD CLUB

(Revised to Jan. 1, 1911.)

The number after the name indicates the year of joining. Charter members are indicated by a star.

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Mrs. John E. Allen, '09	Westford
Mrs. Laura L. Ainsworth, '10	Williamstown
Mrs. Joseph M. Ayers, '10	Bennington
Miss Marion Bole, '02	West Barnet
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Other charter members were Mr. Judson B. Ham, Mr. W. E. Balch, Miss Mary E. Ide, Mr. and Mrs. W. W. Eggleston, Mrs. William C. Horton, deceased, Mrs. Isabel Paddock Carter, deceased.

If any errors or omissions are noted in this list, please notify the secretary.

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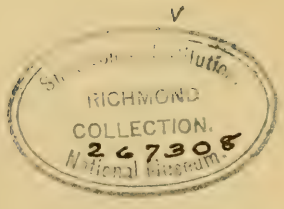

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Editor of the Bulletin

Mr. H. L. Piper

"The objects of this club shall be: to afford a convenient means of communication between those persons in the state who are interested in the study of birds; to collect and preserve information concerning those species found in the state; to create and encourage an interest in birds; to promote scientific investigation, and to secure protection for useful species."

A SEASONAL BIRD CHART

Mrs. A. B. Morgan, Woodstock

The making of a Seasonal Chart implies that one has studied birds for a series of years, and has paid special attention to spring and fall migrations with the idea of making such a record that observations will be available at a glance. The use of such a chart is especially opportune for those bird students in a given locality who need a definite guide, and may be used with equal facility by a club, a bird class, by a librarian, or by a teacher. This one which I made for Woodstock, Hartland and vicinity, I will briefly explain with the hope that members of the Bird Club may make similar charts of their home localities and exhibit them from time to time at future meetings.

To make the chart, after having made the necessary observations, a sheet of paper 16 x 24 that is both ruled and checked, is required—the ruled lines dividing the sheet into columns that stand for the months, the checks or small divisions in each column standing for weeks. In this chart, two checks stand for a week, there are twelve columns for the twelve months, two columns for the names of the birds themselves, and two for the names of the orders to which they belong.

After writing the list of birds according to the arrangement given in any reliable bird book, a ruling pen is used to draw the horizontal lines opposite each bird's name to indicate the portion of the year it is here. For example, taking the first bird on the chart, the bluebird, a line is drawn from the check indicating March 10, the earliest date I have, to the check indicating November 17, the latest date. Birds that are resident have a line drawn full length across the chart, as for the chickadee; birds that may occur at any time during the year and are of varying or uncertain habits have a broken line opposite their names for a part or the whole of the year, as the brown creeper, which occurs in early fall and winter, rarely, but sometimes, in summer, the broken line, in this case, being for April, May, June, July, August

and September. The chart, as it stands today, has a record for 154 species which, of course, does not represent the full number for our vicinity; it does, however, represent all those for which I can vouch. Some facts which it records may be of interest.

I have noticed that in years like this one when I had the early record of March 7 for the song sparrow and March 10 for the bluebird, I had correspondingly early dates for their departure—November 10 and 12. Two years ago I had a fall record of the song sparrow November 24, the spring date being March 24. After a ten years' record I find that the Baltimore oriole and white-crowned sparrow have never varied more than two days from May 10 and May 12—the last date for the oriole being almost as constant, averaging to be August 27. You will doubtless be surprised when I tell you that I saw the white-crowned sparrow for the first time this year in its fall migration, the date being October 8. Many get early dates for the chipping sparrow, but April 16 is the approximate date as far as I have been able to observe. During the year 1909, I observed the yellow-bellied sapsucker in every month except January.

I have a single record for the Lapland longspur in January, the red crossbill in November, the Bohemian waxwing in March. I have seen the horned lark most frequently in March or October, the prairie horned lark in July or August. Last year a pied-billed grebe was taken in February, nearly two months earlier than it is usually seen in our section, and this year for the first time the rough-legged or black hawk was taken November 17. The little green heron and black-crowned night heron have been very abundant this year, the pileated woodpecker has been reported much more common, there have been several reports of the red-headed, and one of the Arctic three-toed woodpecker. Among the uncommon sandpipers I have the pectoral (September), semi-palmated (May and September), white-rumped (May and September).

The water birds that doubtless follow along the Connecticut River during the migratory season, I have studied the least, and it is along this line that I hope to add to the chart. The work now embodied in it represents the results of ten years' study, and in another decade I know that it will need revising and enlarging. The preparing of it has served as

a kind of permanent inspiration to keener and wider observation. I hope other members of the Bird Club will test the truth of this statement and will give the results of their work, if not in this form, then in such a way that a revised list of the Birds of Vermont may be issued and stand as a record of accomplishment for the Club.

SOME RARE BIRD VISITORS

Inez Addie Howe, St. Johnsbury

The summer of 1910 was rich in rare bird visitors to St. Johnsbury. April 10 my attention was attracted by two peculiar sparrows resting by the edge of a marshy spot. I thought that they were Ipswich sparrows, a species which I had seen once at the seashore. I followed them for a time and they took a course due northeast. Later I verified my suspicions by reference to the mounted specimens at the Fairbanks museum, and I am perfectly sure we may credit Vermont with them as migrants. I referred the question to Mr. Charles Maynard of Newtonville, Mass., who first named the species, and he wrote me that they may have strayed up the Connecticut valley and thence up the Passumpsic valley on their way to Sable Island, Nova Scotia, their only known breeding ground. Their winter migrations follow the Atlantic coast as far south as the Carolinas.

During the summer of 1910 I have many dates for meadow larks, my first observations of this delightful visitor since 1896. His first appearance was at East St. Johnsbury, April 23, and on May 8 I found two pairs on a meadow in Concord, two miles from East St. Johnsbury. They nested on this meadow and I saw them repeatedly until after mid-August. July 15 I saw the two pairs of old ones with several young feeding on this meadow at twilight, and the males were singing rapturously. One was seen on a meadow along Moose River in St. Johnsbury, four miles from the nesting ground, May 17. I saw a pair June 14 on the meadow in Lyndon Center, where I first identified them in the spring of 1896, in company with Prof. J. B. Ham, one of our charter members.

BIRD SONGS

Miss Florence H. Sturtevant, Barre

One morning in early spring, when the birds were returning to gladden us with their happy music, I heard a gay little song of a song sparrow. I looked out, and there, on the topmost peak of the barn, sat the little singer. He gave me the song again and again, lifting his head and pouring forth his happiness in its lively melody. After that, other song sparrows sang their beautiful songs, but none seemed to have the charm of that first, gay, lilting tune that announced the approach of the happy summer.

When the year had rolled around, and brought the spring again, there came another bright morning, when my attention was arrested instantly by that familiar song again. Looking out, I saw my little friend sitting on his favorite perch, the roof of the barn, singing his song over and over, for my sole benefit. But after a while he changed the melody, and showed me that that was not the only song he knew, giving a song in a different key, and in different time.

All that summer he sang near the house and garden. Next year I listened for him in vain, but one day I did hear him at the house of a neighbor. The next year he came to a hillside pasture near a swamp not far away. I could always recognize him by his song.

For the past four years I have taken delight in writing down the songs of some of our common birds. From the song sparrows alone I obtained, the first spring, a dozen different songs, not even going out of the house to do so, but taking those that came from the garden and near by, and locating the pitch by the piano, and then writing down the song. This was before I had ever read any book on bird music. Soon afterward I read Schuyler Mathews's "Field Book of Wild Birds and their Music," and the reading of that book helped me to a better appreciation of bird music.

To quote from this book: "There are two things to consider in the study of bird music, time and tune. Various birds

sing in different keys, and in different measures of time." "Every species follows it own unalterable law in rhythmic time, no matter how different are the songs of individuals. This principle is the key to an immediate recognition of the singer." "The easiest explanation of a rhythmic beat is the drum-beat. Any child would recognize this rhythm. The rhythm of the whip-poor-will never varies, no matter how varied the pitch of the tones."

In speaking of compass, Mr. Mathews says: "Birds' voices are pitched so high that most of them are somewhere within the compass of the highest octave on the piano, and many of them, as in the case of the warbler, continue to the other side of the woodwork."

I do not consider myself a whistler, nor a bird imitator, but I will try to give you the melody of the songs which I have obtained, without attempting to reproduce the quality of the voices of the birds. All of the following songs I obtained from the birds themselves, and none of them are identical with those in any book that I have seen, which proves how infinite is the variety.

The one which we shall soon hear, the love song of the chickadee, is considered by some writers to be the purest music on earth. I have secured records of the songs of other birds, as follows: Bluebird, oriole, rose-breasted grosbeak, red-eyed vireo, and robin, eight songs; a group which I call conversational songs, because they are composed of short snatches; white-crowned sparrow; peabody bird, six records; warbling vireo, purple finch; call of the goldfinch, pewee, red-winged blackbird, meadow lark, eleven records; Maryland yellowthroat, spotted sandpiper, hermit thrush, vesper sparrow, four records; field sparrow, and about fourteen distinct songs of the song sparrow, besides others that seem to be only variations of the same songs.

In these songs I do not find that Mr. Mathews's rule, of each species following its own particular rhythm, always holds good. It is generally supposed that the song sparrow starts with two or three long, loud, clear tones. I have four songs that have that characteristic, and two that do not start in that way.

On day I heard two song sparrows singing in antiphonal

style—that is, one answering the other—both in the same key, and the same time, and in harmony so that the two might have been sung together.

From the foregoing observations it may be seen that a good beginning has been made in the study of bird songs, but there are great possibilities in this unfamiliar field. It is a pity that the artistic accomplishments of these little musicians are lost on the deaf ears of so many of us. As Mr. Mathews says: "It is not one vast mediocre chorus; it is an endless variety of soloists, whose voices make up the orchestra which performs every year the glad spring symphony."

BIRD AND ANIMAL PROTECTION

J. A. Chapin, Middlesex

If I were writing from the standpoint of a game warden I should have used the term, "Game Protection," but I am not so writing. I believe there are other economic reasons for the protection and propagation of birds and animals besides that of furnishing sport in their killing. Man is waging a never-ending warfare on the lower creatures for food, clothing, etc., but he need not carry this to the point of wanton slaughter. Different species of animals, as well as birds, prey upon each other, but this is no justification for man exercising unreasonable dominion over all of earth's creatures by reason of his all-powerful skill and intelligence. The woods would be dull and lacking in some of their chief attractions if the birds and animals were not there. It seems to me that only when birds or animals become distinct menaces to the well-being and comfort of mankind are we justified in making a wholesale warfare on them.

The common birds which are our everyday companions are generally protected by law as well as custom. It is well to foster and build up a sentiment for this custom of leaving the robin, the bluebird, the phœbe and the chickadee and all the rest immune from the attack of bad boys, cats and pot-hunt-

ing Italians. It is well to encourage the interest in the habits of birds, their home building and nesting, their long migrations, especially those birds which stay with us throughout the year. How we should miss them all, if by reason of lack of protection or lack of public sentiment favoring such protection any should be exterminated. What could be more companionable to a lonely woman in a lonely farmhouse than a phœbe building its nest on a convenient shelf not eight feet from the kitchen window? From the arrival of the first particle of mud to the time when the fledglings were crowding each other from the nest for their first flight, my daughter watched a pair in their home-making last spring, while busy about her own household work. What a pity it would have been to have disturbed them in their building or to have allowed anyone to do so. And what an opportunity to watch their habits!

An old blue heron took up his abode last summer on a small brook running past my sugarhouse. He came there almost every day and spent his time fishing or catching tadpoles. If disturbed he would flap heavily away only to return on the morrow. The boys made several attempts to shoot him until I vetoed it. I became so attached to the lonely creature that I would as soon have thought of having a calf or sheep shot for the fun of it.

One of my boys caught two gray squirrels in the cornfield in the fall. After keeping them as pets a short time we let them go, but instead of being shy, they came back to the cornbarn for an ear of corn every day or two in the early winter. I had not the heart to have them shot for their petty thieving, which really amounted to but little, and nuts were scarce.

In all our laws for game protection I think we should mix a little touch of humanity; a good deal more live and let live in our treatment.

The annual summer meeting of the Bird Club was held at Brandon, July 6 and 7. The attendance was diminished somewhat on account of the intense heat of the first day. However, several people climbed Mt. Horrid. On the second day a larger number visited Crystal Lake and vicinity. Eight new members were added to the club.

MY BIRD RESTAURANT

Pearl E. Underwood, Hartland

Five or six years ago I began to feed the birds in winter. First I hung out a piece of suet to attract them, then a few crumbs and seeds were scattered about on the ground, next a shelf was attached to the piazza post where we placed a dish filled with seeds, nuts, crumbs and different kinds of cereals. I became interested in the book, "How to Attract and Protect Wild Birds," by Martin Hieseman, and from it received many ideas in improving and enlarging my bird restaurant. We now have a long, broad shelf fastened to the side of our piazza, placed where we can reach it from the doorway of the house. A branch of a dead tree is nailed to the edge of the shelf and here the suet is hung. At one end of the shelf a box about a foot square is placed, one end of which is open so the birds may enter; the top and one side have glass to lighten it within.

Here the seed, crumbs and other food are safe from the snow and sleet of winter, and are kept dry and unhurt by the heavy rains. At the opposite end of the shelf a piece of wire netting is fastened to protect its being approached by those for whom the food is not intended. One night, however, I was awakened by a noise which suggested burglars, but in the dim moonlight I could see a dog walking about below the place where the shelf is fastened. It was morning before I could wholly solve the mystery of my midnight marauder, or learn the havoc which he had wrought—then I found the birds' branch on the ground and the suet was wholly eaten off. I had not really entertained an angel unawares, but had unintentionally given a hungry dog a good meal which he had fully appreciated. Several times a squirrel has come to taste the suet and to carry away a few nuts; aside from these two visitors, my birds have been safe.

Here I will say a good word for my cat. He may be an exceptional one, but he is so well trained and so well fed that he rarely catches a bird at any season of the year; the winter birds especially he knows are not for him. He enjoys watching them from the window, and if at times his eyes have

a wistful expression, he is too wise to even try to capture them.

In the garden, near by, we have some evergreen branches placed in the ground to form a little grove; here the birds come for shelter and to feed on the suet which is hung there. As I write, a chickadee comes to the shelf; he has helped himself to the suet, taken a shelled peanut in his little bill and is off to a near-by tree to enjoy eating it. The other birds which patronize our restaurant are as follows: white and red-breasted nuthatches, blue jay, junco, tree sparrow, hairy and downy woodpeckers, and the pine siskin. One April day, after a heavy snowstorm, a song sparrow, which had just arrived, joined with the winter birds to find seeds and other food. When they reached the place where our good things were set out for them this dear little bird was so overwhelmed with joy that I am sure he composed a new song for the occasion; it sounded different to me from any other song I had ever heard. He sang over and over again, "Aren't we having a happy time?"

Early one morning a northern shrike stopped in the evergreen grove, but only for a minute to take a short rest.

It has been argued that birds become spoiled by artificial feeding and no longer do their work in Nature's household, but Dr. Liebe says: "Birds find but a poor substitute, even in these arrangements which are fitted up with every luxury, for their natural food in woods, field and gardens, which they always prefer. This fact explains what the astonished bird lover often regards as black ingratitude, the sudden desertion, that is to say, of the feeding places when the thaw sets in."

I learn that in every severe winter many birds perish from want of food and not from cold, as so many people believe. Birds require feeding during and after certain changes in the weather, especially during blizzards and intense frost. Careful observation shows that our smaller birds digest their food so quickly that a few hours of want suffice to destroy large numbers of them.

The names of Miss Emily Clark of St. Johnsbury and Mrs. A. B. Morgan of Woodstock were inadvertently omitted in the list of members printed in the 1910 Bulletin.

ADDITIONS TO RUTLAND COUNTY BIRD LIST

George L. Kirk, Rutland

In 1905, Mr. G. H. Ross of Rutland published a list of birds observed by him in Rutland county. This included 150 species. Since that time the writer has added twenty-eight species to the county list. These are largely water birds and they were not in the original list because Mr. Ross had not at that time had much opportunity to become acquainted with the ducks, sandpipers and other birds which follow our water courses. The twenty-eight additions follow:

Holboell's grebe, common migrant on Lake Bomoseen.

Great blue heron, omitted from Ross list by error.

Wood duck, uncommon migrant. Pair bred for a few years at isolated mountain pond in Chittenden.

Greater scaup duck, uncommon migrant on Lake Bomoseen.

Blue wing teal, uncommon migrant.

White winged scoter, common migrant on Lake Bomoseen.

Goldeneye, common migrant, spring and fall.

White rumped sandpiper, rare migrant.

Lesser yellowlegs, rare migrant, except on Lake Champlain.

Golden eagle, one specimen taken in fox trap in Chittenden.

American merganser, common migrant wherever there are lakes or large streams; occasionally winters.

Red-breasted merganser, rare migrant; one flock, in March.

Yellow redpoll warbler, irregular migrant.

Wilson's warbler, irregular migrant.

Pine warbler, breeds sparingly wherever there are suitable groves of pine trees.

Semi-palmated plover, rare migrant; one bird, late May.

Long-billed marsh wren, rare migrant inland although commonly breeds further north on Lake Champlain. For some unaccountable reason it does not seem to breed on a very favorable looking marsh on Lake Bomoseen.

Ruddy duck, rare migrant.

Hudsonian chickadee, two records on Mount Pico, Sherburne, altitude about 3500 feet.

Grasshopper sparrow, breeds occasionally in Fair Haven and Benson, and probably elsewhere in western part of the county. One record in Rutland and one in West Rutland.

Surf scoter, common migrant on lakes and ponds.

American scoter, uncommon migrant.

Horned lark. Considerable study has been made of this bird with a view to ascertaining the time of its visits in comparison with those of the more southern prairie horned lark. We find the horned lark to be a rare migrant occurring only in December, January and in February with flocks of prairie horned larks which arrive for the season about February 25, being really our earliest migrant, although not always being considered a migrant, and remaining until late November.

Horned grebe, very common fall and spring migrant.

Evening grosbeak, flock of nearly twenty birds were seen about the streets of Rutland from February until May, 1909. Have no other record for these rare visitors from the Canadian northwest.

Canada jay. Mr. Ross has twice observed this bird, once on Mount Killington in Sherburne, and once near the city at 700 feet altitude. Both birds were seen in midwinter.

Least bittern. A Middletown Springs man who had an exhibit of birds at the Rutland county fair in September, 1910, showed a mounted specimen of one of these birds, which he said that he shot at a small pond in Castleton, a half mile from Lake Bomoseen. He stated that a colony had bred there for years. The writer knows of no other Vermont record for this bird.

It may not be out of place to mention here that the present winter has been an unusually good one for northern birds, and all the ordinary species that come to us from the north in the cold months have been noted in considerable numbers. The most notable was a great grey owl which the writer saw on New Year's day almost in the city limits. Attention was called to it by the fluttering and loud cries of a sparrow hawk in a big tree under which it sat on the ground. Did any Club member ever see a sparrow hawk in winter? I never did before.

In the National Museum in Washington there is a Philadelphia vireo marked "Rutland County, Vermont." This bird was not in the 1905 list.

While on Mount Killington March 6, 1910, G. H. Ross and the writer saw at about 3000 feet altitude a few waxwings mingled with some redpolls. The birds stopped only a few seconds in a tree so that positive identification without a glass was impossible, but at such an altitude at that time of the year we believed them to be Bohemian waxwings. Neither of us had seen this bird in Vermont before. Of course, there are a few records.

KEEP YOUR EYE ON THE CAT

W. H. Phillips, Brattleboro

A few years ago "Country Life in America" contained an article by Mr. John Burroughs, entitled "Love and War Among the Bluebirds," showing that birds fall an easy prey to cats while battling with each other. The article was very interesting to me from the fact that a short time previous to that date I witnessed a peculiar battle beween two female bluebirds, with a male bluebird as referee. Possibly one female was fighting a rival for the affections of the male, who kept hovering about them, uttering his plaintive cry, and seemingly trying to separate them. The battle occurred about seven o'clock one morning in April. I am reasonably sure that two of the birds were a pair that nested the two previous seasons in a nest I set up in my back yard, and the other female was an interloper, perhaps smitten with the handsome blue-coated gentleman, and trying to win his affections. The battle began around the nest; the females would meet in the air, when they would clinch and fall to the ground, lying for a moment like birds shot down with a gun; then they separated, flying into a large near-by apple-tree, closely followed by the male still trying to quiet them, and stop the fighting.

My wife and I were not the only spectators, for as the battle proceeded we noticed a neighbor's cat across the gar-

den, intently watching and apparently awaiting an opportunity to pounce upon the combatants while they were on the ground. I had one eye on the cat and one on the birds. They suddenly arose from the apple tree into the air and flew away from us across the garden, where they clinched again, and came to the ground. The cat started for them before they landed, and I started at the same time through mud nearly ankle deep. The cat came in ahead and caught one of the female birds. I immediately turned on the cat, chasing her under her owner's piazza, and luckily frightening her so that she dropped the bird just within my reach. On picking the bird up I found it only slightly injured, but badly frightened—its little heart was beating like a trip-hammer (and I assure you mine was thumping just a little bit after my sprint through the mud).

With the assistance of my wife I arranged a basket, put the bird into it, and set it just inside the barn above the reach of cats, leaving the door partially open with sufficient room for the bird to fly out, but not enough for a cat to get in. Some time during the day the bird went away, and I hope, and have reason to believe, that it enjoyed life for a long time after, and possibly may be alive today. After the battle the remaining pair occupied the nest, raising two broods that season. They also came back the following year, and I am reasonably sure that this same pair occupied the nest for five seasons in succession, after which they were driven away by a pair of little house wrens. I may be wrong in my supposition that this same pair of bluebirds came back to the old home each year, but it is certainly a very pleasant thought.

The tenth annual winter meeting of the Vermont Bird Club was held in conjunction with the Vermont Botanical Club at Burlington, January 20 and 21, 1911. The attendance was larger than usual and an increased interest seemed manifest. Dr. E. H. Forbush, state ornithologist of Massachusetts, was the guest of the club, and gave an illustrated lecture in the evening at the joint session of the two clubs. The constitution of the club was amended. It was voted to establish a life membership with a fee of ten dollars. Sixty-four people were elected to the active membership of the club. The treasurer reported a balance of $49.79; expenses $19.36.

BIRDS OF GREENSBORO AND VICINITY

Mrs. Florence Kinney

I am sure that Greensboro is a very good field for bird study, but I feel incompetent to do it justice, as there are yet many birds that I cannot identify. I will, however, tell you about some of those I have observed, and I can truly say that the knowledge that I have gained is a constant source of pleasure to me, and I find great satisfaction in every new bird I can add to my list.

Spring means more and more to me every year and I am often reminded of what James Beukham has said in his book, "Where Town and Country Meet," "Happy is he who hath time and heart to stand upon the edge of spring and listen for the coming of the birds."

When there is the first feel of spring in the air, I take a walk expecting any moment to hear the velvet notes of the bluebird or the "tut-tut" of the robin. My first robin last spring arrived March 20; my first bluebird came March 11, which is early for us.

I have about 100 birds that I have been able to identify, but there are others in this vicinity. It was only last summer that I learned that we had the white-eyed vireo. A friend who is a bird student called my attention to it and we discovered it was nesting very near our summer camp. One morning, I found two of these baby vireos at my door and the mother bird in a tree near by in great distress. As I stooped down to examine the little birds, our pet chipmunk came scampering up for a peanut. "Chippy" didn't seem to notice the birds, but Mother Vireo certainly noticed him and down she swooped and away ran the frightened squirrel as fast as he could go.

A happy experience was in finding the nest of a winter wren in a log icehouse, the nest being between the cakes of ice on the sawdust. I watched this little home very carefully and was present when the little wrens made their first venture into the world. It was a pretty sight to watch the four little wrens on a branch of a tree and Mother Wren busy in serving a lunch. The winter wren is quite common with us and once I saw it as late as December 24. I wonder where it usually winters?

I have found the nest of the water thrush among the roots of a tree on the shore of the lake. This bird is also common with us. Of the woodpecker family, we have all the common ones. Occasionally we see the pileated, and once I saw the Arctic three-toed, being near enough to actually count the toes. We have, also, one record of the red-headed woodpecker. We have several kinds of ducks. I saw, one day, a mother and ten little ones. Loons we see frequently and hear their weird calls on the lake; once a seal gull was seen, while at another time a blue heron came to us. Just once have I heard the whip-poor-will in this region. The white-throated sparrow is very common and comes to us for crumbs, while the hermit thrush sings almost at our very door, so near that I can watch the delicate quiver of its throat as it sings.

Last spring I heard a new thrush—there was no mistaking its being a thrush, but I was not able to identify it except as I thought Burroughs' description of the song of the Bicknell's or grey-cheeked thrush very closely described it. He says: "It seems as if the bird were blowing in a delicate slender golden tube, so fine and yet so flute-like and resonant the song appeared." This was heard in the Catskills and he continues: "Probably never did there go up from the top of a mountain a smaller song to greet the day, albeit it was of purest harmony." I wish some of you would come next summer and identify it.

About six miles from here we saw a cardinal bird; we were able to get very near it and thus identify it without doubt. I thought at the time that it did not come so far north, but afterwards found it in the list of Vermont birds.

Of the many warblers that we have, I have identified eighteen.

The Legislature of 1910 created the office of State Ornithologist, to be appointed by the State Commissioner of Agriculture. Mr. Carlton D. Howe of Essex Junction received the appointment.

NOTES

Our list of birds has fallen short of last year, being only seventy-six as against ninety-four the preceding year. But we have had some interesting experiences. We saw five baby bluebirds huddled together in a tight little row on a branch, being fed by the old birds. We watched them so long that the parents began to feel alarmed and stayed away so long that common humanity prompted us to leave. At another time we actually saw a performance which I had read about with a slight tendency toward incredulity—interchange of polite attentions between two adult cedar birds. They were extraordinarily beautiful specimens and not more than twenty feet away from where I stood with a good glass, and not even a leaf in the way. The rapidity of their motions was marvelous. Number one picked a berry from his side of the tree and put it in his comrade's bill, and instantly number two hopped a step or two to pick a berry from his side of the tree and returned the compliment, followed at once by number one repeating the act. They kept up the exchange of courtesies for what seemed a long time, probably eight or ten minutes. June 16 we saw a pair of white-throated sparrows, apparently intending to nest. They made a great fuss whenever we came near a certain small tree, but otherwise were very tame and friendly. After a few days they disappeared, but in another place we heard one July 4. March 29 we heard for the first time the song of the northern shrike. We thought at first that it was a catbird, but when we located the singer at the top of a tall tree there was no doubt of his identity. January 8, 1911, one evening grosbeak came into the tree by my window, where we saw them two years ago. It stayed there more than half an hour, and we had a splendid view of it through a large telescope. The bird was very quiet, sitting for a long time preening his feathers and then making only a slight move to get a bit of food.—*Mrs. C. V. H. Coan, Rutland.*

The old song says, "Strange we never prize the music till the sweet-voiced bird has flown," but I think we do prize the song and love the singer while he is with us. I am, owing to many shrikes, perfectly bereft of winter birds so far this winter. I have shot two of the shrikes. Last winter I had large flocks of redpolls and of snowflakes, five chickadees, three white-breasted nuthatches, one pair of woodpeckers. We have many summer birds out here in the mountains, unusual numbers of bobolinks were in the meadows near my windows, also many dear song sparrows along Sunny Brook, close by. Robins seem scarce about the lawn, but there are many in the maple grove, one mile away near our sugar house. We shot one red squirrel at 4 o'clock in the morning while he was robbing a chipping sparrow's nest in a tamarack tree over my door. About July English sparrows began nest building in the tamarack tree. The nest has stood many hard winds and storms. I wonder if this is not a new freak of this pest of ours. In May I discovered a shrike's nest as the young birds were leaving it. The nest was in a young pine, and was made of twigs, twine, long pieces of clothes line with strips of cotton cloth hanging from it. I wonder if any other member knows of this northern bird nesting with us.—*Alice S. Brown, Starksboro.*

Dr. Lucretius H. Ross of Bennington reported a young American scoter, taken at Bennington November 16, 1910; a king rail which spent the month of May, 1910, in the reeds of a small mill pond within the Bennington village limits, where its cries were heard night and day by all who lived near, but only a few people were fortunate enough to drive it into the open and get a good view of it; a dovekie, taken alive June 1, 1910, in Bennington. It died the following day. This bird was in the summer plumage, although ornithologists say that it is never seen in the United States excepting in the winter plumage. Dr. Ross sent a tabulated list of 119 species observed in 1910, in Bennington and vicinity by himself, Salome B. Ross and Charles Hitchcock.

Miss Inez Addie Howe of St. Johnsbury recorded seventy-seven species in her tabulated record for 1910. Ipswich sparrows were her rarest find.

A phœbe's nest in an unusual location was reported by L. H. Potter of West Rutland. The nest was found June 1 on a beech tree which had fallen into a stream in Clarendon. The body of the tree was about three feet from the water, held there by the branches, and in a pocket on the under side of a large limb the birds had built their nest. Evidently they had found this a good feeding ground, and there being no other convenient nesting site they chose the dead tree. When found the nest contained four young, all of which grew to maturity.

I have had for years several lunch tables where I feed the winter birds. We have with us now two downy woodpeckers, three white-breasted nuthatches, five chickadees, two blue jays and seven tree sparrows. In the summer I have one pair of bluebirds who return to their box each spring, also two pairs of robins return to their nests, one pair on top of a box we put up for bluebirds, the other pair in the vines by the piazza post. As we have never seen a shrike and our little terrier keeps cats away we have never had a tragedy at any season. —*Mrs. Josephine S. Brown, Starksboro.*

The tabulated record of Mr. D. Lewis Dutton of Brandon contains the names of sixty-one species. He recorded an American three-toed woodpecker June 12, at Mount Horrid, Rochester, at an elevation of 2500 feet. He saw a winter wren the same day on the mountain. He reported the mourning dove for April 22, at Leicester. Mr. Dutton reported two pairs of mourning doves that his father knows to have nested in one locality over thirty years, and another pair for ten years within hearing of their house.

The capture of a full-grown golden eagle by a Halifax farm hand, November 8, was reported by Mr. Harry L. Piper of Brattleboro. The eagle was catching a guinea hen November 8, and became entangled in a woven wire fence as it rose with the fowl. The man grabbed it by the neck and legs before it could clear itself. The eagle was sent to the Bronx Park, New York.

Mrs. James Hartness of Springfield sent in a list of sixty-nine birds, the yellow-billed cuckoo being among them.

The annual migration list of Mr. William C. Horton of Brattleboro contains the names of eighty-one species, seen without special effort; nearly all records being made while about his daily business. One of his records was a parula warbler, nesting, May 11. A saw-whet owl, seen July 10, was another unusual record, and black-crowned night herons, September 2, are rare in Brattleboro. With one exception every bird was seen in the town of Brattleboro.

St. Johnsbury children must have had their eyes open. In the 1910 bird study contest, the hardest test that had ever been given them, with specimens of many female birds included, Lawrence Doty named forty out of the fifty birds shown; Edith Stone named forty-eight, Max Gilfillan named thirty-nine, and Dorothy Adams named thirty-eight correctly. Many other children made creditable records.

Miss Alice Eaton, assistant librarian at Woodstock, reported that printed lists of birds were sent out from the library to the teachers of the district schools. Returns were received from ten schools, the highest number recorded being sixty species.

Mr. H. S. Kinsman of Rochester, who was spending the winter in St. George, Ga., reported the following northern birds wintering there: Robin, bluebird, meadow lark, blackbird, grackle, phœbe, goldfinch, flicker, several other woodpeckers. None of these birds were in song.

Mrs. C. H. Morrill of Randolph Center reported a list of fifty-six species which she had seen in Franklin. She had not tried to get a complete list as she had been more interested in those she could study and become familiar with than in rare migrants, seen once a year.

The Fairbanks museum list for 1910 contained ninety-seven species. The forty others listed in previous years makes a total of 137 kinds.

BIRDS ABOUT FERN COTTAGE

William C. Horton, Brattleboro

I have three bird houses on posts about twenty-five feet from the ground; one of them is the "Castle," where the purple martins had their home many years up to 1903. A few small houses and boxes are placed in different places for the birds to nest in. The winter bird feeding places are small boxes and small houses placed on the side of the butternut tree, and a shelf at the dining-room window with four tin cups about one inch deep fastened to it. On the ground between the window and the butternut tree is placed a box with two sides made like a chicken coop, three by three and one-half feet high. This is for the birds to feed under during a snow storm. The downy woodpeckers and white-breasted nuthatches are at the feeding places the year round.

The tree sparrows begin to come in October. I generally have thirty-five to forty constantly on the feeding places. They begin to mate in April and while mating they sing a beautiful, sweet love song. The first of May they leave for their summer homes in the north. Last winter I had at the feeding places six chickadees, four downy and two hairy woodpeckers, four white-breasted nuthatches, thirty-five to forty tree sparrows, eight blue jays and several juncos. Occasionally a flock of pine siskins and goldfinches come to the black birch tree over the summer house to feed on the catkins. This fall (October 16, 1910), a flock of fifty or more pine siskins came onto the birch tree. They only stopped for a short time. I find these birds erratic in their movements. Several times the white-winged crossbills have visited this same birch tree. They have not been here for two years. A year ago last winter I had a song sparrow and two white-throated sparrows on the feeding places all winter.

I keep something on the feeding places all the year, generally beef suet on the tree. I begin to put out seeds in October. I use millet and Hungarian grass seed for the sparrows and juncos, beef suet fastened to the butternut tree for the woodpeckers, nuthatches, chickadees and brown creep-

ers, also bread and cheese crumbs, hemp and sunflower seeds and I sometimes crack a few butternuts.

The only birds that eat the hemp and sunflower seeds are the nuthatches and chickadees. These birds are not on the *list* as *seed eaters,* but they surely love and eat these seeds in winter. It is amusing to see how they manage to eat the seed. The nuthatch takes them in his bill and flies away to the tree, places the seed in the bark to hold it and raps away at it until the shell opens; then he swallows it and comes back for more. The chickadee picks the seed from the cup, carries it to a small branch on the tree, places the seed under its foot and holds it down on the branch with its claws and raps away with its bill until the shell is broken, then it swallows the seed and returns to the cup for more. The nuthatch and chickadee love the butternut meats and cheese crumbs. Blue jays eat bread crumbs, suet, corn and other grains.

The downy woodpeckers come to feed on the suet at times all summer. They feed their young from it and as soon as their babies can fly they bring them to the suet and coax them near to it. Then the mother bird picks off pieces of suet and places it in the babies' mouths. This teaches the babies how to eat also, as in a very short time I find the babies eating away at the suet all alone. I have found this sort of feeding the winter birds a success for over thirteen years and keep the birds with us all winter.

The tree swallows have had their home in the "Castle" every year since the purple martins met their fate in June, 1903. Nearly all the birds about Fern Cottage this season have been successful in rearing their young. Two pairs of robins built their nest near by. One pair we watched build their nest in an elm near our bedroom window. They labored faithfully and completed the nest. The robin was on the nest for several days, then left it for some reason. In a day or so later I saw them building another nest in a tree near the elm. In a few weeks I saw them feeding their young at the last nest made.

A pair of rose-breasted grosbeaks built their nest on the terrace (in the grove), some forty feet from the summer house, on a low tree. It was so located we could see them building their little home. As soon as incubating commenced it was interesting to see the actions of the male bird. He

would sing incessantly to his mate and when she left the nest for food and water he would take the place on the eggs, and while on the nest waiting for her return he kept up his singing just the same. After the eggs hatched we watched them feeding the babies. The male bird worked as hard apparently as the mother bird in feeding the children until they left the nest.

A pair of house wrens commenced to build a nest in a box put up for them on the jet of the house. The female would lug in sticks from two to six inches long. It was interesting to see her when she arrived at the entrance to her home with a stick six or more inches long put it into a hole one inch in diameter. She would carry the stick near the middle in her bill. When she reached the hole it made a complete bar across it and stopped her short from entering. She then would work the stick along in her bill until it came to the end, then she would enter and draw the stick into the box. The male would work some, but most of the work was done by the female. In the course of a week I supposed she was incubating. I found out by the fuss the male made, bubbling over with song and carrying sticks to his box and then over to one of the large birdhouses on the post. I soon discovered that the female had left her nest just built and gone away to find a new home, evidently not satisfied with this one. The male bird was working his best to get her to return and occupy her nest just built or build in the large house. He was busy for several days trying to coax her to return to her nest or take up a new tenement in the large bird house. All the time he bubbled over with song, carried sticks into several tenements in the large house, then he would fly away and bring back his mate. She would look over the situation, but of no avail. Like most of her sex she was determined to have her own way and did. Later she found a place over across the road that suited and later I found her beside the road feeding her young babies.

The song sparrow is my favorite bird about Fern Cottage, one I so much welcome in early spring, bubbling over with its song from early morning until night, and many a dark night I have heard it sing at ten, eleven and twelve o'clock. It is here late in the season and has stayed two seasons all winter and fed with the other birds at the window. I am

fortunate enough to have two song sparrows with me on the feeding places every day this winter, so far. They lose their song in August and sometimes sing fairly well for a short time in September.

I find, to meet with success in keeping the birds about Fern Cottage in summer breeding season, I must always protect them against their enemies that are disturbing them continually. They are the hawks, blue jays, red squirrels, cats and English sparrows.

The red squirrels and jays I shoot off the last of the winter. Hawks I shoot when I find them in the grove. Cats are a torment to the birds mostly when the young come off their nests. I am continually driving them away when around home. The English sparrow I will not have about my grounds to stay. I shoot them with a very small shot gun, using No. 12 shot. In December and January I poison them and destroy nearly all of them this way.

I dislike very much to shoot the blue jays, as they are such a handsome bird. I have seen them rob birds' nests of all their eggs at one onslaught, and as soon as the jays come in my grove, in nesting season, the birds put up a distressed cry until they leave. The same cry is heard when hawks disturb them.

Do birds love music? As I was watching the birds feeding from my window December 18, 1910, Mrs. Horton commenced playing the piano. Every bird stopped eating at once and listened, not making a move, only looking about to see where the music came from. On the butternut tree were two white-breasted nuthatches, on the edge of one of the feeding boxes sat a tree sparrow, on the little birch tree near the window sat another tree sparrow and under the coop was the song sparrow. Not one of these birds moved except their head for fully ten minutes—listening—seemingly charmed by the music.

BIRD LIST FOR WEST BARNET, 1900 TO 1910

Miss Marion Bole

Bluebird; American robin; hermit thrush; olive-backed thrush, scarce; Wilson's thrush; wood thrush, rare, May 21, 1908; ruby-crowned kinglet; golden-crowned kinglet; chickadee; red-breasted nuthatch; white-breasted nuthatch; brown creeper, scarce; short-billed marsh wren, rare, September 28 and 29, 1905; winter wren, scarce; house wren, rare; brown thrasher; catbird; American redstart; Canadian warbler; Wilson's warbler, scarce; mourning warbler, rare, June 1, 1907; Connecticut warbler, rare, September 6, 1904; yellow palm warbler, rare, October 12, 1907; black-throated green warbler; blackburian warbler; blackpoll warbler; bay-breasted warbler, rare; chestnut-sided warbler; magnolia warbler; myrtle warbler; black-throated blue warbler; yellow warbler; parula warbler, scarce; Nashville warbler, scarce; black and white warbler; northern water thrush, rather common; Maryland yellow-throat; ovenbird; blue-headed vireo, rare, May 18, 1907; yellow-throated vireo; warbling vireo; Philadelphia vireo, rare, May 16, 1900; red-eyed vireo; migrant shrike, rare; northern shrike, not common; cedar waxwing; bank swallow; tree swallow; cliff swallow; barn swallow; purple martin, scarce, May 22, 1900 (Coventry); scarlet tanager; indigo bunting; rose-breasted grosbeak; fox sparrow; swamp sparrow, scarce; song sparrow; chipping sparrow; tree sparrow; white-throated sparrow; white-crowned sparrow, scarce; savanna sparrow; vesper sparrow; house sparrow; junco; snowflake; pine siskin; American goldfinch; redpoll; American crossbill; purple finch; pine grosbeak; bronzed grackle; rusty blackbird; Baltimore oriole; meadow lark; red-winged blackbird; cowbird, scarce; bobolink; crow; blue jay; prairie horned lark; least flycatcher; alder flycatcher, scarce; yellow-bellied flycatcher, rare; olive-sided flycatcher, scarce; great-crested flycatcher, scarce; wood pewee; phœbe; kingbird; ruby-throated humming bird; chimney swift; nighthawk; northern flicker; red-headed woodpecker, rare, May 22, 1906; pileated woodpecker, scarce;

downy woodpecker; hairy woodpecker, scarce; yellow-bellied sapsucker; belted kingfisher; black-billed cuckoo, scarce; screech owl, rare; barred owl, rare; American osprey, scarce; sparrow hawk, rare; pigeon hawk, rare; broad-winged hawk, rare; red-shouldered hawk; sharp-shinned hawk; marsh hawk; ruffed grouse; spotted sandpiper; solitary sandpiper, scarce; greater yellowlegs, rare, September 23-25, 1909; least sandpiper, rare, August 23, 1904; Wilson's snipe, rare, September 14, 1910; American woodcock, rare; little green heron, rare, May 16, 1900; great blue heron; black-crowned night heron, rare; American bittern, rare; American golden-eye; wood duck, rare; dusky duck; hooded merganser, rare; American merganser, rare; Leach's petrel, rare, October 15, 1903; loon, rare.

AS THE EDITOR SEES IT

The bulletin is very late in appearing for financial reasons. It should be published as soon as possible after the winter meeting, but this is not possible unless the condition of the treasury warrants the expenditure. The treasury condition depends on whether you and I and all the rest pay our dues promptly, and each year get a few new members to take the places of those who drop out of the club through removal or lack of interest. The publication of the bulletin would be simplified if, at the annual meeting, the club should make a definite appropriation for that purpose, basing the appropriation on the condition of the treasury at that time. If the funds are inadequate the publication of the bulletin should be dispensed with that year. Such a course would be regrettable, as the bulletin is the only point of contact between the club and many of its members, and its absence would result in an even greater lack of interest. Far better would it be if each one of us showed our loyalty by stimulating interest in the club and keeping its active membership up to a level where there would be no question of finance to delay or prevent the publication of the bulletin.

NEW MEMBERS

ELECTED AT THE JANUARY, 1911, MEETING

MRS. A. L. RICHARDSON	Poultney
MR. W. H. PHILLIPS	Brattleboro
MRS. W. H. PHILLIPS	Brattleboro
DR. G. S. BIDWELL	Waterbury
MRS. G. S. BIDWELL	Waterbury
DR. W. L. WASSON	Waterbury
MRS. W. L. WASSON	Waterbury
MR. A. H. SMITH	Waterbury
MRS. A. H. SMITH	Waterbury
MR. M. W. CHAFFEE	Waterbury
MRS. ALICE M. COOLEY	Waterbury
MRS. NELLIE G. DUFFUS	Waterbury
MRS. E. H. JONES	Waitsfield
MRS. GEORGE W. BIXBY	Derby Line
MISS FANNIE SUMNER	Brandon
MISS BLANCHE MAXFIELD	New Haven
MRS. HENRY WADE	Starksboro
MRS. A. S. HARDY	Morrisville
MISS FANNIE A. COOK	Wallingford
MRS. CHARLES A. RILEY	Stowe
MISS MILDRED PREMO	Rutland
MISS LENA C. ROSS	Rutland
MR. FRANK HART	Rutland
MRS. W. H. BRADFORD	Bennington
MR. H. T. RUTTER	Burlington
MISS MARION RICHMOND	Burlington
MISS RUTH HENDERSON	Burlington
MISS IDA BROWNELL	Burlington
MRS. LILLIAN VAN AKEN	Burlington
MR. MAYNARD S. PAIGE	Winooski
MISS PHILA HALL	Fairfax
MR. HAZEN WILCOX	Fairfax
MRS. B. A. STONE	Westford
MR. FLOYD RICE	Westford
MISS MEDA RICE	Westford
MISS JENNIE PERRY	Fairfax

Miss Florence Smith	Westford
Mr. A. J. Eaton	South Royalton
Mrs. A. J. Eaton	South Royalton
Dr. Dana Dearing	South Royalton
Miss Minnie Metcalf	South Royalton
Mr. H. S. Kinsman	Rochester
Mrs. Inez Ballantine	Hardwick
Miss Ruth Bliss	Montpelier
Miss Helen Bliss	Montpelier
Miss Carrie Hollister	North Montpelier
Miss Edith Hollister	North Montpelier
Mr. C. C. Pray	North Montpelier
Mrs. C. C. Pray	North Montpelier
Mrs. L. D. Coburn	North Montpelier
Mrs. L. P. Young	East Montpelier
Miss Julia Foster	East Montpelier
Mr. Henry Kilton	East Montpelier
Mrs. Henry Kilton	East Montpelier
Mr. Joseph Macomber	Grand Isle
Mrs. F. J. Macomber	Grand Isle
Miss Eva Perkins	Quechee
Miss Lena Lord	Johnson
Miss Eva Hapgood	Woodstock
Mrs. Clara Vail Perkins	Woodstock
Mrs. A. P. Morgan	Woodstock
Mrs. D. H. Strong	Williamstown
Mrs. Charles M. Cone	Hartford
Miss Alice Cone	Hartford

Elected at the July, 1911, Meeting

Miss Martha N. Clark	South Wallingford
Mrs. J. H. Billson	East Charlotte
Mrs. Helen Kent	Benson
Mr. J. W. Collins	Westminster
Mrs. B. M. Miller	Bethel
Mr. Waldo L. Rich	Saratoga Springs, N. Y.
Mrs. Waldo L. Rich	Saratoga Springs, N. Y.
Mrs. Chas. D. Hazen	White River Junction

Mrs. Elizabeth B. Davenport of Brattleboro is the first one to be enrolled as a life member of the club.

EDITORIAL NOTES

Are you feeding any birds this winter? Just the right time to begin now. The birds will pay you back tenfold for the trifling cost and effort. Every bird saved from starvation now means more birds somewhere next summer.

The editor regrets that much interesting and valuable material had to be omitted, either entire or in part, from lack of space in the bulletin—more especially that it was not possible to publish the bird songs reduced to musical notation which accompanied Miss Sturtevant's paper, and the interesting photographs of birds and winter feeding which Mr. Horton and others sent with their papers.

How about your local game warden: does he care whether the law protecting song and insectivorous birds is enforced? Does he know anything about birds anyway? Do a little missionary work with him and secure his interest and goodwill; they will be useful if you ever want to reach human enemies of the birds through the strong arm of the law. A spicy letter from him to a boy cursed with a new air gun will work wonders and save the lives of many birds. But first try the missionary work on the boy in every case.

The tabulated records of birds seen during the year 1910 which were sent in to the secretary are indicative of the good work some of the club members are doing. It is not possible in the limits of the bulletin to publish these statistical facts, but this should not deter any member from sending in the tabulated lists on the blanks which will be furnished by the secretary. It only by the comparison of a considerable number of these local lists for several years and from many parts of the state that the real standing of any species can be determined. Every one of these lists which is sent in adds to the scientific value of the club records. Get a blank from the secretary, fill it out, whether you see twenty-five birds or one hundred and twenty-five, and send it in at the end of the year.

Vermont Bird Club

BULLETIN No. 7

March, 1915

Published Annually by the Club

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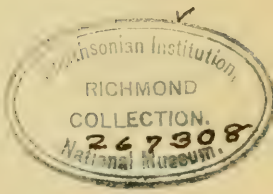

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1913.

OFFICERS OF THE

VERMONT BIRD CLUB, 1913

PRESIDENT.....Professor G. H. Perkins, Burlington
VICE-PRESIDENT.....Mr. Harry L. Piper, Westminster
SECRETARY.....Mr. Carlton D. Howe, Morrisville
TREASURER.....Mr. Jay G. Underwood, Hartland

EXECUTIVE COMMITTEE.

Mrs. A. B. Morgan .....Woodstock
Mrs. Elizabeth Davenport .....Brattleboro
Miss Florence Sturtevant .....Barre
Mr. George L. Kirk .....Rutland
Mr. D. L. Dutton .....Brandon

EDITOR OF BULLETIN.

Mr. Harry L. Piper.

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THE ANNUAL MEETING.

The thirteenth annual meeting of the Vermont Bird Club was held in St. Johnsbury, Jan. 31 and Feb. 1, 1913, in conjunction with the Vermont Botanical Club. The sessions were held in the Fairbanks Museum, with President Brainerd of the Botanical Club in the chair. In the Friday morning session the bird papers were by Miss Helen Sherrill of Northampton, Mass., Miss Emma E. Drew of Burlington, and Mrs. Nellie F. Flynn of Burlington. The bird papers of the afternoon were by Miss Mabel E. Stevens of St. Johnsbury, and Mrs. J. G. Underwood of Hartland, with some notes on Bennington County birds by Dr. L. H. Ross of Bennington. At six o'clock the annual supper was served in Pythian Hall, the two clubs being guests of the Fairbanks Museum. The annual roll call followed. In the evening session a stereopticon lecture on Japan was given by Professor G. H. Perkins. In the Saturday morning session the bird papers were by Miss Sara E. Graves of Waterbury, and by Mr. Harry L. Piper of Westminster. Digests of these papers appear elsewhere in the bulletin.

In the business meeting the officers of last year all were re-elected as follows: President, Professor G. H. Perkins of Burlington; vice-president, Mr. Harry L. Piper of Westminster; secretary, Mr. Carlton D. Howe of Morrisville; treasurer, Mr. Jay G. Underwood of Hartland; editor, Mr. Harry L. Piper; excutive committee, Mrs. A. B. Morgan of Woodstock, Mrs. Elizabeth Davenport of Brattleboro, Miss Florence Sturtevant of Barre, Mr. G. L. Kirk of Rutland, Mr. D. L. Dutton of Brandon. It was voted, on motion of Mr. Underwood, "That no persons be recognized as members of the Vermont Bird Club after their election, until they had accepted their election and paid their first year's dues." Mr. Piper, chairman of the committee on reorganization of the work of the club, reported a plan for section meetings and for a comprehensive study of the song sparrow. The report was accepted and adopted with minor changes. It appears elsewhere in the bulletin. The committee was continued. It was voted on motion of Mr. Underwood that a committee be appointed by the president of the Vermont Bird Club to confer with the officers of the Audubon Society of Vermont looking toward meeting together, issuing joint bulletins, and cooperating for development of interest in and study of birds in Vermont. The president appointed the following committee: Mr. Underwood, Prof. J. W. Votey of Burlington, Mr. C. D. Howe. It was voted to hold the summer meeting July 1 and 2 in the West River Valley.

C. D. Howe, Secretary.

TREASURER'S REPORT.

RECEIPTS.

April 1 to Dec. 31, 1912, dues from members	$10.00
Oct. 29, 1912, from C. D. Howe, former treasurer, cash on hand	20.03
Jan. 1 to Feb. 1, 1913, dues from members	61.00
Total receipts	$91.03

EXPENDITURES.

Vermont Botanical Club, notices of winter and summer meetings, 1912	$ 6.26
Printing and supplies, coin cards, envelopes, dues slips, etc.	13.25
Treasurer's expenses, record book and postage	8.14
Secretary's expenses	2.55
Total expenses	$30.20
Balance on hand Feb. 1	$60.83

JAY G. UNDERWOOD, Treasurer.

NEW MEMBERS OF THE VERMONT BIRD CLUB.

SUMMER MEETING, 1912.

Mr. C. M. Richardson	Waitsfield
Mrs. C. M. Richardson	Waitsfield
Mr. C. H. Morrill	Bakersfield

WINTER MEETING, 1913.

Mr. George H. Parker	Wells River
Mrs. George H. Parker	Wells River
Miss Elizabeth Hills	Lyndonville
Miss Zada Herrick	64 Walton St., Saratoga Springs, N. Y.
Mrs. Emerson Davis	66 Walton St., Saratoga Springs, N. Y.
Mr. Wendall P. Smith	Wells River
Mrs. Effie Houghton	Lyndonville, R. D. 1
Dr. Fanny T. Carleton	St. Johnsbury
Miss Alice G. Clark	St. Johnsbury
Mrs. Charles Seaver	Williamstown

THE SUMMER MEETING.

The Joint Summer Meeting of the Vermont Botanical and Bird Clubs will be held in the West River Valley with headquarters at Townshend Inn, Townshend, Vt., July 1 and 2, 1913. Expeditions have been planned by the members of the committee, especially by Mr. L. A. Wheeler of Townshend who has made a special study of the flora of this valley, to the local points of interest. Hotel rates, trains, and all details will be sent on application to members of the committee.

A supplementary meeting will follow. Members who decide to attend will go July 3 to the town of Stratton, in the wildest part of southern Vermont. Headquarters will be in the abandoned mill village known as Grouts Mills. From this point explorations will be made of the forests, bogs, etc., of the surrounding country, especially of the wild meadows and bogs which are reported to lie south of Grouts on the Deerfield River and will be flooded next year by the Somerset Dam.

It should be thoroughly understood by all planning to attend this supplementary trip that it is strictly a camping trip. The villages are all abandoned. While there will be a roof over the heads of the party, everything else will be taken in. This includes, of course, bedding, food and clothing. All should be of the simplest kind. Everyone who plans to go should be prepared for a strictly camp trip with all its inconveniences, its fun, and its joys of the woods. The committee expect that a forest ranger will be with the party, and will assist in finding trails. All the members of the committee visited this country last summer, and a partial list of plants found appears in the current bulletin of the Vermont Botanical Club. Persons interested are invited to correspond with members of the committee, who will send detailed circular.

JAY G. UNDERWOOD, Hartland, Vt.,
LESTON A. WHEELER, Townshend, Vt., } Joint Committee on Summer meeting of Vermont Botanical and Bird Clubs.
HAROLD G. RUGG, Hanover, N. H.,

THE SECTION MEETING PLAN.

It has been felt for some time that the Vermont Bird Club could do a much more effective work if it could reach a greater number of people. In the annual meeting of 1912 a committee was appointed to report on a new plan of work which should interest more people and increase the scope of the club's work. On the recommendation of this committee the club adopted the following motion in the 1913 annual meeting.

1. That in addition to the regular winter and summer meetings, the Vermont Bird Club shall hold section meetings at least twice each year in or near each of the following places:—Barre, Bennington, Brattleboro, Burlington, Hartland, Rutland and St. Johnsbury and at other places convenient for bird students to get together.

2. That in each place where a section meeting is to be held, a leader shall be appointed—these leaders to constitute a committee in charge of the district work.

3. That it shall be the duty of each leader to make arrangements for the meetings in his district, and to write a paper for use in his own district meeting and in every other district meeting. The programs for the district meetings would thus be made up largely from the papers by the leaders. These papers should be generally educational and instructive, rather than a record of personal observations. The leader should also use every means to induce those who attend the district meetings to turn in all their personal observations, however small.

THE SONG SPARROW STUDY.

In accordance with the recommendation of the special committee on new work for the club, it was voted to take up a special study of the song sparrow in 1913. Each member is to gather all possible data on the species for his own section, and a similar study is to be made through the district meetings by those not now members of the club. It was voted that the material thus gathered might be issued as a special bulletin in the form of a monograph on the song sparrow in Vermont. The editor of the bulletin was given general charge of this study and was instructed to prepare a suggestive outline for use of members and for use in the district meetings, and to assign special topics to those especially qualified to pursue them.

A JUNE BIRDSNESTING.

MISS SARA E. GRAVES, Waterbury.

Birds calling out from the thicket and treetop
Rapturous strains to the dear brooding mate,
Up and away! not a moment delay,
Would you discover before 'tis too late.

Over the mowing lot, daisy besprinkled,
Hovers and gurgles the bobolink gay,
Through those lush grasses nobody passes,
Safe are his treasures close hidden away.

Merry his laughter, defiant his ditty,
Where is his little wife, no one may guess,
Wait till his brood he's supplying with food
Watch then—the secret, perchance, you'll possess.

High 'mong the willows the cuckoo has builded
Creeper and grapevine close canopy make,
Fearless the mother love, brooding our heads above.
We steal softly away for devotion's sweet sake.

This tangled thicket is tenanted surely—
Yellowthroat, sparrow and catbird are here;
Lo, as I scramble through weed and bramble
Veery's four fledgelings deep cradled appear.

On up the stream through the rank waving grasses,
Peeping within every bower, every vine,
Wonderful histories, wild, witching mysteries,
Secrets of feathered folk hence shall be mine.

Ever about me are bird songs enchanting
Lispings and chirpings of birdlings on wing;
Quick the ear catches the brief little snatches,
Gathers the rapture the light breezes fling.

Fear not, winged darling of wildwood and meadow,
Safely you build near the paths I may choose;
This June time rover's the truest of lovers,
Trust me then ever, you nothing shall lose.

THE RED-EYED VIREO—THE FARMER'S FRIEND.

MISS MABEL E. STEVENS, St. Johnsbury.

The little red-eyed vireo of the roadside may truly be called the farmer's friend. From their arrival in May to their departure in October, they are constant hunters of all kinds of insects. The eggs of the potato bug and the various kinds of caterpillars—the farmer's enemies—are their favorite food, and they have no preference whether they are raw or roasted, as I once saw them pick up some of the caterpillars that fell from a burnt nest.

While watching a pair of the vireos one spring day, I discovered that they were using the small new webs of the caterpillars in building their nest, using it in place of mud or clay. The webs that began to show signs of caterpillar life were used as an ever-ready restaurant. However, their good work was not confined to this kind of game, for they were frequent visitors to the rows of potatoes, peeping beneath the leaves to find the eggs of the beetle which they ate with a relish. Now and then they took a quick trip to the garden where a nice cabbageworm, a butterfly, a stray grub, or a few striped squash bugs were quickly and quietly captured. They did not neglect a lone currant bush at the edge of the garden, but gave it a thorough daily inspection.

As I watched these little toilers, busy from early morn till nightfall I thought what better friend or help could be asked by the farmer or fruitgrower.

BRINGING UP OF A CEDAR WAXWING.

MISS EMMA E. DREW, Burlington.

While my Uncle and I were in the Adirondacks last summer we had the pleasure of bringing up by hand a cedar waxwing. It was after a strong windstorm about August 1st that this little bird was brought us by a man who had found it on the ground, evidently blown away from his home and friends.

At first we kept the bird in a little box with a twig thrust in for a perch, and fed him bird cherries, flies and berries. It was great fun to see him drink water from a medicine dropper.

After a week Dick began to fly about a little. Every day he did better than the day before. Soon he flew from one to another of the

family, and was perfectly fearless. We then took him out of doors each day, and later he lived out of doors day and night, though he came into the house by door or window at pleasure. We added to his diet bits of scraped beef, millers, apples, bread and other things (once even a bit of sweet chocolate). He soon learned to catch part of his own food for which the family were duly thankful.

Dick was very fond of his bath. All I had to do was to appear on the porch with his little dish in my hand in the morning, when Dick came hurrying to me. Sometimes he did not wait for me to put down the dish, but would fairly tumble into it right in my hand, splashing me and himself impartially.

Dick was a great favorite and pet. Even after he grew strong enough to care for himself he stayed nearby and was a valued member of our family. He was particularly fond of my Uncle, and followed him about wherever he went. One day he went to the postoffice with him to the joy and admiration of children.

Early in the morning when Uncle opened his blinds, Dick was on hand, and would fly in on to his head, or his back, calling loudly for flies. Then he would remain on Uncle's head or about his room until he was ready for breakfast, riding down to the dining-room on his shoulder. When Uncle went into the garden to pick berries Dick was there to help. If he sat on the porch to read his paper, Dick appeared and sat on his shoulder. If Uncle became too interested in his paper, Dick would reach down and kiss him. And if this did not cause him to lay down the paper and take the bird on his knee to pet him, or feed him bird-cherries, Dick would take hold of his ear and give a sharp pull, or carefully select one hair in his mustache and give a strong tug.

Sometimes Dick would fly to the summer kitchen to see what was going on there, and often tried to help Grandma cut apples. He was delighted when she offered him a bit, and flew out into a tree to eat it. He was also interested in ginger cookies and pies!

Dick slept in the vine on the porch cold and wet nights, but other nights he lodged in a maple tree outside Uncle's window, so as to be ready to help him dress in the morning.

We often had dinner on the wide veranda. Here our little bird joined us, partaking freely of whatever pleased his palate most, and flying to each one in turn, between bites, examining our ornaments

with minuteness and care, pulling out hair, and making himself generally very familiar and friendly.

Dick was a very happy little bird, and so gentle and dear and affectionate that we missed him sadly when he joined a flock of his friends one day late in September, and flew away with them. Perhaps we shall see him next spring. We hope so.

A JUNCO'S NEST.

MISS SARA E. GRAVES, Waterbury.

The young ladies at the next farm house discovered the nest in a sunset ramble a mile away on the hills. They could not identify the bird, and their description was somewhat vague, though sufficient to arouse my curiosity. I had no suspicion what the bird might be. "Would I go up and see the nest myself?" Indeed, nothing could delight me more, especially as it was off my regular beat.

A night or two later we went up on the slopes of Prospect hill, itself a sufficient attraction. On arriving at the sugar "shanty" near the location of the nest we paused to take breath. And what a view, a panorama of uplands and lowlands, farm lands and mountains with grand old Camel's Hump and Mt. Mansfield in the background. It was a perfect June evening.

"All was so still in earth and air
You scarce would start to meet a spirit there,
Secure that naught of evil could delight
To walk in such a scene on such a night."

But the mother bird recalled us to our object. There she was, sitting on a branch above our heads, lisping audibly "Phit—phit." Her utter indifference might have fooled us quite, had we not known of the nest; but I was surprised to find that it was a slate colored snowbird nesting in our neighborhood. The nest was securely hidden in a rank bed of chickweed, so deep in shadow and so perfectly in harmony with its surroundings, that even when we had uncovered it and were looking straight into it, we saw nothing but thickly matted chickweed, until suddenly four bright red mouths popped open, as though saying "Boo" to the intruders. Little fuzzy creatures they were—"darky" babies in truth. They would have baffled interviewers most successfully if they only had known enough to keep their mouths shut.

PHOTOGRAPHING A NESTING WOODCOCK.

HARRY L. PIPER, Westminster.

I first made the acquaintance of my woodcock on a bright May morning. I had an appointment with her but she did not know it. A friend brought me word that he had found a woodcock's nest in his pasture in a location unusually favorable for a photograph. Of course I took the hint at the very first opportunity.

My friend's farm is on a high breezy hill, sloping toward the sunrise and with a far outlook through a picturesque valley. We walked cautiously out through a little grove of hardwood and hemlocks, and just at the southern edge my friend pointed silently underneath a hemlock about as high as my head. I looked and looked again, but I could see only the brown leaves flecked with sunshine and shadow. Still my friend's finger pointed insistently to a spot about six feet from us just under the edge of the lower hemlock branches. At last I saw just what I had been looking for all the time—a fat mother woodcock sitting motionless among the brown leaves. I had been prepared for an example of protective coloration but I had not realized how perfectly the mottled and streaked back of the bird would blend with the dead leaves and grasses. If one looked away an instant, he would have to look sharply at the spot again before he could make out the outline of the sitting bird. It was an amazing demonstration of a familiar fact.

The bird kept her place until we were within four feet of her, and then flew off with the characteristic whistling flight. Two eggs were in the nest. I took one picture of the nest and eggs at close range and then set up the camera in a partially screened position about six feet from the nest. I waited, and in about five minutes I heard a slight rustle in the grass on my left. Turning around slightly I saw the old woodcock leisurely walking in a circle around me and the nest. She was not 20 feet from me but only now and then could I catch a glimpse of her, so well did she take advantage of the scant shelter the rough pasture afforded. She circled nearly half way around me and inspected me and the camera from many viewpoints. Finally she walked rapidly away down the hill. I saw no more of her although I waited a half hour for her return.

Fearing that the eggs might be harmed by too long exposure, I went away. On my return ten minutes later she was on the nest. She

must have been watching and returned to the nest as soon as I left. Knowing the exact location I approached cautiously and focussed the camera about 10 feet from the nest. She did not even wink at the click of the shutter on the first exposure, nor did she show the least sign of alarm when I moved up to six feet away and took another picture. At four feet away where I focussed up and took another view, I could see that she was breathing more rapidly, and the next move sent her whisting away across the pasture.

This nest was in too exposed a location and it came to naught. A few days afterward my friend reported the nest torn up and the eggs gone. Whether a prowling skunk, fox, snake or red squirrel was responsible, we could make no guess, but some of the many bird enemies had found the snug nest and in a minute the work of weeks and the hopes of a year of the mother woodcock had been wiped out.

A NEST ON A CLOCK.

MISS HELEN SHERRILL, Northampton, Mass.

When I was a girl I lived in a farm house in Alabama. In the family sitting room was a big fireplace, and on the mantle above was an old fashioned clock, about three feet high. As my mother and I sat quietly at work in this room one spring morning, a wren flew in through the open window. We held our breath as it flew about the room, at last alighting on the clock. Not long afterwards the wren and its mate began to build their nest right on top of the clock. In and out they flew, carrying sticks and straws. The sticks looked like splinters from old, dry rails, some of them being six or eight inches in length. It was wonderful to see such tiny birds carry such long sticks.

Just outside the north window, through which the wrens always flew in going to or from the nest, was a porch. After the nest was finished papa wren would sit on the porch railing and sing. On cool nights my mother closed the window. Finding it closed in the early morning the bird would peck at the glass until the window was opened. I suppose that really he was trying to fly through it. As soon as the window was opened he flew straight to the nest. The striking of the clock never disturbed it, nor talking in the room.

When the four baby birds were ready to fly, we were all eager to see their first trial. But, friendly as they were, the old birds apparently thought this was asking for too much faith in humanity for one wren, while we were all at dinner, the flight was taken. When we came back the whole wren family was out in the yard. We never saw them again.

BENNINGTON COUNTY NOTES.

DR. L. H. ROSS, Bennington.

We have a few items of interest from this section.

There was an unusual migration of Cape May warblers extending from May 6 to May 22, 1912. Numbers were seen and one was found dead. This is the first observation of Cape Mays in Bennington County in more than ten years. Never to my knowledge have they been so numerous.

A Tennessee warbler was seen, the first noted in Bennington County.

A yellow-breasted chat was found nesting. This was reported at the summer meeting by Charles Hitchcock.

A Hudsonian chickadee was seen Dec. 26, 1912.

MY ACQUAINTANCE WITH THE PRAIRIE WARBLER.

MR. GEO. W. FULLER, White River Junction.

While I was studying the bird-life of a piece of pasture-land, June 30, 1908, a few miles from my home, I was confronted by a very strange bird. It was a warbler, of that I was sure, but I did not know the species. There were two of them, evidently a pair. After consulting my hand book of birds, I identified them without a doubt as the prairie warbler.

One of the birds, which I decided was the male, perched on a branch of a small hemlock tree and uttered a call, ascending the scale and then partly descending with more volume. The other bird darted in and out of the branches of the same tree, twittering nervously, and seemed very anxious about something. Wondering at her manner

I peered into the thick branches, and was well repaid, for there reposing on a rather slender bough, about six feet from the ground, was the nest and eggs of this rare little visitor.

The nest was rather loosely built, although the cup was firmly woven and lined with horse-hairs, which had been brought over a mile by the tiny builders. The outer covering consisted mostly of grass stems, rootlets, and pine needles, fantastically decorated with everlasting (Antennaria plantaginifolia) and the down of a small marsh daisy. The nest measured on the outside 3 in. across by 2 in. deep, while the cup measured 2 in. by 1 in.

The eggs were four in number and resembled those of the goldfinch in shape, being rather pointed at the smaller end, though a trifle smaller. The markings were wreathed about the greater end, and consisted of small blotches, mottlings, and minute dots of black, dark and reddish brown, and a peculiar lilac color (purple). The several colors combined formed an attractive pattern on a delicate cream-colored ground.

The next day I returned and found the female on the nest, the male did not appear.

A few days later I received word that the swamp was being cleared. I went at once and on approaching the nest found that the noise of the axes and the men's voices had been too much for the tenants, who had decamped, leaving the then thoroughly chilled eggs to their fate.

The nest was removed, the eggs carefully blown and both are now in my cabinet, sole proofs that the prairie warbler has at last been found breeding in the Green Mountain State.

NESTING OF THE PRAIRIE HORNED LARK.

MISS BRIDGET M. ROONEY, St. Johnsbury.

On the first Saturday of May, 1911, six little girls invited me to go on a picnic with them. We met some of the school boys who seemed to be interested in the birds. One little chap asked if I could tell him the name of a bird which looked much like a sparrow of some kind, but had a black head and black markings at the throat that looked just like a black bow. I asked him if he knew the chickadee and he said he was sure it was not a chickadee. I told him I would go down

to the place in the pasture where the birds had a nest with four baby birds in it. On reaching the nest we found the young birds were keeping house, so we sat down to wait for the return of the parent birds. Very soon they came in sight and I recognized them at once as birds which I had seen here each year for at least five years, but I had always seen them in the fall in the cemetery at Paddock's Village, and quite a number of them together. I described them to some of the bird students and they thought they might be young bobolinks taking on the plumage of the parents. But when I saw them here so early in the spring, on May 6, and nesting, I knew they were not bobolinks.

Wayne Lurchin, the little boy, first saw them April 23, and a week later, April 30, as he was going up through the pasture, he discovered the bird on the nest and when she flew off he saw four eggs. Miss Griffin and I studied them and decided they must be the prairie horned lark. She visited the nest and saw the birds, and several of our bird students went over on the hill to see them. On May 14 we went to the nest but the babies had all left home and were running about in the grass. One of the babies was put back on the nest and had its picture taken, and again in the grass, as the little fellow did not wish to remain in his home any longer.

Would this bird ever sing along in the night? Three different women heard a bird song last summer which attracted their attention, because they had never heard anything like it before. They described the song as beginning with a whistle and ending with a pretty song. I could not think of any of our birds that sing at night except now and then one that might wake up and sing out once and then go back to sleep. One woman said that the bird sang until late in the evening.

THE MEADOW LARK IN CALEDONIA COUNTY.

MISS INEZ ADDIE HOWE, St. Johnsbury.

My first and for many years, my only record of the meadow lark was on a misty, moist morning in the latter part of April, 1896. I was then attending school at Lyndon Institute, and our professor of Natural Sciences, J. B. Ham (a charter member of our club), was conducting a series of bird walks for students. For fourteen years I looked and listened in vain for this bird in Vermont, but saw him only on occasional trips to Massachusetts.

On April 23, 1910, Miss Abbie Smith of East St. Johnsbury saw him in that village. From East St. Johnsbury they followed Moose river upstream for nearly a mile and a quarter and finally settled on the Grout meadow which is in the town of Kirby. During May, June and July, 1910, I made many trips to that meadow to watch them and study their habits. During that summer there seemed to be two pairs of adult birds, but on July 15, in passing the meadow at twilight in addition to the adults I counted ten young birds feeding among the grass. I visited them regularly until they migrated in the latter half of August.

On June 14, 1910, I observed a pair and heard them singing on the meadow at Lyndon where I first identified them in 1896.

On May 17, 1910, a pair of them were on the Hovey meadow, up Moose river about two miles east from St. Johnsbury village, and within the town limits, which is the only date, I, personally, have for St. Johnsbury.

In the spring of 1911 when the migrants began to return I was so curious to know whether the meadow larks would return to the same locality, that on May 14, 1911, I made a trip to the Grout meadow once more, when to my intense delight, I saw twelve different individuals feeding and singing their well known songs. During the summer of 1911 I made many subsequent visits to the meadow and saw many young birds in the latter half of July.

On July 12, 1911, I once more visited their haunts at Lyndon and saw there two pairs of adults and several young birds.

My only disappointment in my acquaintance with these feathered friends is in never having found their nests.

It gives me great pleasure that they should have returned to the same haunts in such increased numbers for the second year.

NESTING OF YELLOW-BREASTED CHAT.

MR. CHARLES HITCHCOCK, Bennington.

In a bushy tract about an acre in area in some meadows about a mile from Bennington village, I heard an unfamiliar bird note June 19. After much chasing about the bird finally came into view and was identified as the yellow-breasted chat. The following morning the

bird was seen in the same place by Dr. L. H. Ross, Mrs. Ross and another bird student. It chattered constantly or sang whenever we stirred it up. We decided that it must be nesting nearby. After the others left I watched the bird carefully. Two or three times it flew into a wild apple tree close beside which was a thick hedge of bushes, now and then flitting nervously down into the hedge. A little search revealed the nest in the hedge and the mother bird sitting. There were three young birds and one egg in the nest. That afternoon, when the nest was visited by Dr. Ross, the egg had hatched.

June 22 my brother and I took some pictures of the nesting place, but were unable to get satisfactory pictures of the young birds. The nest was visited every day until June 25, when one of the young birds, probably the last one hatched, was found dead. For fear that the home life of the birds was being disturbed by such frequent visiting, no more observations were made until June 30. The nest was found empty, but the parent birds were nearby and they fluttered about me in such a worried manner that I felt sure the young were safely hidden in the bushes. The young were able to leave the nest therefore, within 12 days after hatching.

So far as I am able to learn this is the first authentic nesting record of this bird in Vermont.

MIGRATION LIST, HARTLAND.

MRS. PEARL E. UNDERWOOD.

The Hartland Nature Club members have kept migration records since 1908. The following list is made up from their observations for five years. The territory covered ranges from about 500 feet altitude on the Connecticut River to about 1,800 feet. The northern raven was shot in Hartland. The summer record for the white-winged crossbill was on the summit of Mt. Ascutney, where large flocks were seen.

	First seen.	Last seen.
Canada goose	Mar. 3	Nov. 12
American bittern	May 11	Aug. 25
Mallard duck	Aug. 25	.....
Black duck	Apr. 6	Oct. 27
Wood duck	.....	Sept. 30

	First seen.	Last seen.
Pied-billed grebe	Apr. 3	.....
American merganser	.....	Oct. 25
Blue-winged teal	.....	Oct. 25
Black-crowned night heron	Aug. 11	Sept. 12
Great blue heron	May 19	Oct. 13
Little green heron	July 16	Sept. 12
Lesser yellow legs	May 10	.....
Upland plover	Apr. 17	Aug. 5
Bartram's sandpiper	May 2	Aug. —
Semi-palmated sandpiper	.....	Sept. 24
Spotted sandpiper	Apr. 23	Oct. 7
Solitary sandpiper	May 11	Aug. 25
Pectoral sandpiper	.....	Sept. 14
White-rumped sandpiper	May 14	.....
Common tern	Apr. 1	.....
Pheasant	Mar. 29	.....
Ruffed grouse	Mar. 31	.....
Mourning dove	May 16	.....
Marsh hawk	Mar. 31	Aug. 29
American goshawk	Jan. 31	Mar. 24
Red-tailed hawk	Mar. 30	Sept. —
Red-shouldered hawk	May 20	.....
Pigeon hawk	Apr. 2	Aug. 14
Sparrow hawk	June 2	.....
Sharp-shinned hawk	Apr. 25	Oct. 11
Cooper's hawk	May 12	Aug. 23
Broad-winged hawk	Apr. 12	.....
Rough-legged hawk	.....	Nov. 17
American osprey	Apr. 27	Sept. 12
Bald eagle	.....	.....
Screech owl	Feb. 10	Nov. 26
Barred owl	.....	Dec. 8
Long-eared owl	.....	Aug. 17
Great horned owl	Mar. 12	Dec. 12
Woodcock	July 5	.....
Black-billed cuckoo	May 19	.....
Belted kingfisher	Apr. 16	Oct. 9
Hairy woodpecker (Res.)	.....	.....

	First seen.	Last seen.
Downy woodpecker (Res.)	.....	.....
Red-headed woodpecker	June 6	.....
Arctic three-toed woodpecker	.....	Nov. 16
Pileated woodpecker	Feb. 1	Dec. 7
Golden-winged woodpecker	Mar. 31	Nov. 6
Yellow-bellied sapsucker	Apr. 16	Dec. 26
Whippoorwill	May 7	.....
Nighthawk	May 10	.....
Chimney swift	Apr. 30	Sept. 15
Ruby-throated hummingbird	May 8	Aug. 27
Kingbird	May 2	Sept. 14
Great crested flycatcher	Apr. 19	Sept. 20
Phoebe	Mar. 29	.....
Wood pewee	May 19	Sept. 20
Chebec	Apr. 11	Sept. 24
Yellow-bellied flycatcher	May 7	.....
Alder flycatcher	May 26	.....
Olive-sided flycatcher	July 16	Aug. 17
Horned lark	Dec. 3	Mar. 4
Prairie horned lark	May 4	.....
Blue jay (Res.)	.....	.....
Crow (Res.)	.....	.....
Northern raven	Nov. 9	.....
Bobolink	May 5	Aug. 26
Red-winged blackbird	Mar. 20	Oct. 21
Cowbird	.....	Sept. 15
Meadow lark	Apr. 5	.....
Baltimore oriole	May 10	Aug. 30
Orchard oriole	May 19	.....
Rusty blackbird	Apr. 3	Oct. 14
Bronzed grackle	Mar. 20	Oct. —
Pine grosbeak	Jan. 5	Mar. 7
Rose-breated grosbeak	May 6	Aug. 27
Arctic grosbeak	Jan. 3	.....
Blue grosbeak	.....	Oct. 19
American goldfinch	Feb. 1	Dec. 25
Pine siskin	Jan. 10	Nov. 20
Snow bunting	Jan. 2	Nov. 20

	First seen.	Last seen.
Junco	Feb. 1	Dec. 31
Lapland longspur	Apr. 22	.....
Purple finch	Jan. 27	Dec. 11
Vesper sparrow	Apr. 6	Nov. 2
Redpoll	Jan. 6	Oct. 19
Savanna sparrow	Apr. 8	Oct. 4
White-crowned sparrow	Apr. 21	Oct. 15
White-throated sparrow	Apr. 16	Nov. 5
Tree sparrow	Nov. 10	Apr. 30
Chipping sparrow	Apr. 3	Oct. 8
Field sparrow	Apr. 8	Oct. 8
Song sparrow	Mar. 3	Nov. 26
Swamp sparrow	Apr. 29	Nov. 12
Fox sparrow	Mar. 31	Nov. 12
Towhee	May 15	.....
Indigo bunting	May 15	.....
Scarlet tanager	May 9	Sept. —
Eave swallow	May 1	Sept. 4
Barn swallow	Apr. 27	Sept. 1
Bank swallow	May 3	Aug. 26
Tree swallow	Apr. 20	.....
Cedar waxwing	Feb. 8	Nov. 29
Northern shrike	Feb. 8	Oct. 21
Loggerhead shrike	Jan. 4	.....
Red-eyed vireo	May 12	Sept. 29
Warbling vireo	Apr. 23	Sept. 20
Yellow-throated vireo	May 10	Aug. 26
Solitary vireo	May 4	Oct. 1
Black and white warbler	Apr. 19	Sept. 20
Nashville warbler	May 12	Oct. 10
Tennessee warbler	May 10	Oct. 4
Parula warbler	May 4	.....
Cape May warbler	May 4	.....
Summer warbler	May 1	Aug. 24
Black-throated green warbler	May 1	Sept. 20
Black-throated blue warbler	May 4	Aug. 13
Myrtle warbler	Apr. 29	Nov. 30
Magnolia warbler	May 4	Sept. 29

	First seen.	Last seen.
Chestnut-sided warbler	May 8	Oct. 11
Baybreasted warbler	May 17	.....
Black poll warbler	May 4	Sept. 8
Blackburnian warbler	Apr. 30	Sept. 1
Maryland yellowthroat	May 10	Oct. 8
Yellow palm warbler	Apr. 20	Oct. —
Pine warbler	Apr. 30	Sept. 28
Canadian warbler	May 10	Oct. 6
Redstart	May 11	Sept. 25
Ovenbird	May 6	Oct. 4
Water thrush	.....	Sept. 2
Wilson's black cap	May 16	Aug. 26
Catbird	May 10	Oct. 15
Brown thrasher	Apr. 29	Sept. 20
Winter wren	Apr. 11	Nov. 13
House wren	Apr. 18	.....
Brown creeper (Res.)	.....	.....
White-breasted nuthatch (Res.)	.....	.....
Red-breasted nuthatch	Feb. 5	Sept. 14
Chickadee (Res.)	.....	.....
Tufted titmouse	Apr. 6	.....
Golden-crowned kinglet	Mar. 20	Dec. 1
Ruby-crowned kinglet	Apr. 12	Oct. 24
Wood thrush	May 8	Oct. 20
Olive-backed thrush	June 16	Oct. 10
Wilson's thrush	Apr. 17	Oct. 8
Hermit thrush	Mar. 31	Oct. 25
Robin	Mar. 10	Nov. 9
Bluebird	Mar. 7	Nov. 16
White-winged crossbill	Mar. 4	Aug. 20

Dr. L. H. Ross of Bennington reports evening grosbeaks the past winter.

Mrs. C. H. Morrill of Bakersfield reports evening grosbeaks Feb. 21 on the campus of Brigham Academy. About 40 birds were seen about the campus several days. They were feeding on the maple seeds.

TEN YEAR MIGRATION LIST FROM THE FAIRBANKS MUSEUM, ST. JOHNSBURY.

1	Chickadee	Resident
2	White-breasted nuthatch	Resident
3	Red-breasted nuthatch	Resident
4	Downy woodpecker	Resident
5	Hairy woodpecker	Resident
6	Pileated woodpecker	Resident
7	American goldfinch	Resident
8	Blue jay	Resident
9	Tree sparrow	Resident
10	Brown creeper	Resident
11	American crow	Resident
12	Belted kingfisher	Resident
13	American merganser	Resident
14	Northern shrike	Resident
15	American crossbill	Resident

		1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
16	White-winged crossbill...	.....	.....	4— 1	.....	4—21	.....	3—20	.....	4— 7	4— 8
17	Pine grosbeak	12—14	1—24	3— 3	11—11	1— 1	1—16	1— 6	1—19	1— 4	1— 4
18	Snow bunting	.....	1— 8	1—17	2—17	2— 1	1—16	2—14	1—17	1—15	2—16
19	Redpoll	12—30	2—18	3—18	4— 7	2—11	1—23	1— 1	1—18	1—29	1—23
20	Horned lark	.....	3—19	3— 7	3—10	3— 3	1—25	2—28	2—10	2— 7	2—24
21	American robin	3— 9	3—24	3—18	3—11	3—22	1— 6	3—26	3—20	3—16	2—23
22	Bluebird	3— 9	3—24	3—21	3—28	3—23	3—16	3—26	3—12	3—14	3—20
23	Song sparrow	3—11	3—25	3—21	4— 5	3—23	3—20	4— 2	3—22	3—18	3—24
24	Pine siskin	.....	5—13	3—24	.....	5—15	5—17	2— 7	4—15	5—18	5—12
25	Slate colored junco	3—13	3—25	3— 2	3—24	3—20	3—22	3—24	3—24	3—14	3—11
26	Yellow-bellied sapsucker..	3—19	4—12	4— 3	4—21	3—18	4—11	4—20	4—14	3—12	4—12
27	Purple finch	3—20	4—19	2—12	3— 9	4— 3	3—28	3—30	3— 9	4— 1	2—28
28	Rusty blackbird	.....	4—24	.....	.....	3—29	4—27	4—11	4— 4	.....	.....

1—Jan. 2—Feb. 3—Mar. 4—Apr. 5—May. 6—June. 7—July. 8—Aug. 9—Sept. 10—Oct. 11—Nov. 12—Dec.

		1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
29	Cowbird	3—20	4—11	4—14	4—23	3—29	3—29	4—12	4— 3	4—11	4— 8
30	Phoebe	3—22	3—26	3—30	4—15	3—27	3—27	4— 6	3—25	4— 5	4— 6
31	Fox sparrow	5—27	4—20	4—21	10—21	3—31	3—31	4—19	4— 2	3— 1	4— 8
32	Red-winged blackbird	3—28	3—29	3—24	4— 4	3—23	3—31	3—28	3—21	3—29	4— 1
33	Cedar waxwing	4— 3	5—30	3—19	3—31	6— 8	3—29	6— 2	5—22	4— 2	4—10
34	Bronzed grackle	4—11	4— 6	4— 5	4—14	3—30	3—27	4— 6	3—25	4— 1	4— 1
35	Vesper sparrow	4—12	4— 9	3—31	4—18	4— 7	4— 6	4— 7	4— 6	4— 7	4— 8
36	Hermit thrush	4—12	4—24	4—13	4—17	4—22	4—17	4—18	4— 9	4—10	4—14
37	Myrtle warbler	4—12	4—30	4—27	5— 3	4—28	4—24	5— 5	4— 4	4—29	4—21
38	Flicker	4—13	4— 5	4— 9	4—20	4—27	3—31	2—11	3—10	3— 7	3—31
39	Chipping sparrow	4—13	4— 9	4— 3	4— 6	4—13	4—23	4—19	4— 5	4— 5	4—10
40	Golden-crowned kinglet	4—16	5— 5	3—31	11— 4	.....	4—17	4—12	4—20	4— 5	.....
41	Ruby-crowned kinglet	4—18	4—24	4—23	3—14	4—28	4—18	4—12	3— 3	3—15	4—24
42	Winter wren	.....	.....	.....	10— 5	4—16	.....	5— 9	5—17	3—27	5— 5
43	Savanna sparrow	4—19	4—24	4— 9	4—22	4— 7	4—18	4—17	4—11	4—12	4— 8
44	White-throated sparrow	4—26	4—17	4—23	4—30	4—29	4—18	4—19	4—20	4—26	4—13
45	Chimney swift	4—28	5— 4	4—29	5— 1	5— 3	5—12	5— 8	5—19	5— 1	5— 4
46	White-bellied sparrow	4—30	5— 1	4—30	4—21	4—28	4—26	5—10	4— 2	5— 3	5— 3
47	Least flycatcher	5— 3	5— 4	5— 6	5— 5	5— 8	5—10	5— 5	5— 8	5— 7	5— 3
48	Black and white warbler	5— 3	5— 4	4—30	4—29	5— 9	4—26	5— 6	4— 4	5— 7	5— 3
49	Barn swallow	5— 6	4—18	4—29	5— 1	5— 3	4—26	4—22	5— 5	5— 6	4—16
50	Warbling vireo	5— 8	5— 5	5— 7	5— 6	5—14	5—13	5— 9	5— 8	5— 7	5— 7
51	B'k-thr'd blue warbler	5— 9	5—22	5— 7	5— 7	5—14	5—13	5— 7	5—13	5—13	5—13
52	Cliff swallow	5—10	5— 7	5—14	5—18	5—15	5—15	5— 8	5— 5	5— 8	5—11
53	Bank swallow	5—10	5— 5	5— 1	5—10	5—10	5— 6	5— 8	5— 5	4—30	5— 2
54	Red-eyed vireo	5—10	5—10	5— 6	5— 5	5— 8	5—19	5—19	5—23	5—17	5—15
55	B'k-thr'd green warbler	5—10	5— 7	5— 8	5—16	5—14	5—13	5— 9	5— 5	5— 9	5—11
56	Baltimore oriole	5—10	5— 8	.....	5—12	5—14	5—13	5—11	5—17	5—12	5—11

		1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
57	Ovenbird	5—10	5— 7	.....	5—15	5—14	5—11	5— 8	5—15	5—12	5—11
58	Parula warbler	5—10	5—13	5— 6	5—13	5— 8	5—14	5—14	6— 6	.....	5—19
59	American redstart	5—10	5— 8	5— 9	5—15	5—15	4—28	5—11	5— 9	5—12	5— 7
60	Scarlet tanager	5— 0	5—18	5— 9	5—13	5—17	5—17	5—11	5—23	.....	5—12
61	Nashville warbler	5—10	5— 7	5— 4	5— 6	5—15	5—14	5—11	5— 8	4—29	5—21
62	Yellow warbler	5—10	5— 8	5— 7	5— 8	5—15	5—14	5—10	5—15	5—13	5—11
63	Field sparrow	5—10	5— 7	4—27	5—17	5— 5	4—26	4—22	4—16	4—25	5— 4
64	Catbird	5—11	.....	5— 9	5—15	5—14	4—26	5—13	5—19	5— 8	5—11
65	White-eyed vireo	5—11	.....	.....	.....	5—19	5— 6	5— 8	5— 8	4—29	.....
66	Yellow-throated vireo	5—11	5—12	5— 6	5—16	5—14	5—10	5— 9	5— 9	5— 8	5— 5
67	House wren	5—11	5— 6	5— 3	5—16	5—23	4— 7	5—13	5—15	5— 8	5—10
68	Rose-breasted grosbeak	5—12	5— 8	.....	5— 6	5—11	5—15	5—13	5— 7	5—12	5— 8
69	Blackburnian warbler	5—13	5— 7	5— 9	5— 7	5—14	5—17	5—12	4—27	5—14	5—11
70	Kingbird	5—13	5— 7	.....	5—12	5— 8	5—14	5—14	5—17	5—14	5— 5
71	Purple martin	.....	.....	.....	.....	.....	.....	6—26	.....	.....	5—14
72	Bobolink	5—13	5— 7	5—10	5— 8	5—13	5—11	5— 9	5— 9	5—11	5— 8
73	Black-billed cuckoo	5—13	.....	.....	6— 3	6—16	7—19	.....	.....	5—20	5—26
74	Wilson's thrush	5—15	5— 8	5— 6	5—12	5— 5	5—13	5— 1	4—23	5— 4	5— 7
75	Great-crested flycatcher	5—15	5—12	5—12	5—16	5—18	5—15	5—11	5—20	5— 9	5—12
76	Maryland yellow-throat	5—16	5— 8	5— 9	5—18	5—19	5—14	5—10	5—19	5—15	5—11
77	Spotted sandpiper	5—16	5— 5	.....	5— 5	5— 5	5— 6	5— 8	5—10	5— 7	5—10
78	Connecticut warbler	5—16	.....	5—18	5—23	.....	9— 1	.....	.....	.....	.....
79	Chestnut-sided warbler	5—17	5— 8	5— 9	5— 6	5—11	5—15	5—10	5—19	5— 7	5—12
80	Wilson's warbler	.....	.....	.....	5—24	.....	.....	.....	.....	.....	5—26
81	Bay-breasted warbler	.....	.....	.....	5—28	.....	.....	.....	.....	5—26	5—22
82	Wood pewee	5—18	5—23	5—22	5—19	5—27	5—20	5—27	5—30	5—19	5—19
83	Ruby-thr'd hummingbird	5—19	5—10	5—12	5—16	5—22	5—16	5—17	5—14	5—21	5—12
84	Nighthawk	5—19	5—15	5—18	5—18	5— 7	5—19	5—22	5—24	5—15	5—13

		1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
85	Magnolia warbler	5—20	5—11	5— 9	5—17	5—14	5—13	5— 9	5—17	5—29	5—20
86	Blackpoll warbler	5—20	5—23	5—23	5—24	5—18	5—24	5—14	5—22	5—17	5—19
87	Indigo bunting	5—21	5—23	5—21	5—19	5—24	5—16	5—29	5—23	5—20	5—19
88	Traill's flycatcher	5—21	5—22	5—26	6— 3	6— 2	.....	.....	5—29	5—20	6— 2
89	Yellow-bellied flycatcher	5—22	.....	5—18	.....	.....	.....	5—29	5—31	.....	5—24
90	Canadian warbler	5—24	5—22	5—21	5—17	5—18	5—16	5—17	5—29	5—20	5—19
91	White-crowned sparrow	4— 0	5— 5	4—28	4—30	5— 2	5— 3	5— 9	5— 9	5—16	5— 3
92	Olive-sided flycatcher	5—29	5—29	5—14	5—18	5—19	5—18	.....	5—23	5—29	.....
93	Olive-backed thrush	.....	.....	5— 9	5—22	7—11	.....	.....	.....	5—25	.....
94	Brown thrasher	.....	.....	.....	.....	.....	.....	.....	.....	.....	6—20
95	Yellow-billed cuckoo	.....	.....	.....	.....	.....	.....	.....	.....	.....	5—28
96	Tennessee warbler	6—19	.....	.....	.....	.....	.....	.....	.....	.....	.....
97	Cape May warbler	.....	.....	.....	5—15	.....	.....	.....	.....	.....	.....
98	Water thrush	.....	.....	5—11	.....	.....	.....	.....	.....	.....	5— 5
99	Yellow palm warbler	4—27	.....	.....	.....	.....	.....	.....	.....	5— 7	.....
100	Holboell's grebe	4— 7	.....	.....	.....	.....	4—27	.....	.....	4—28	.....
101	Solitary sandpiper	5—18	5— 8	.....	5—13	5—10	5—17	5—11	.....	.....	.....
102	Osprey	.....	5— 6	4—29	4—21	5— 8	5— 4	4—16	4—26	4—19	5— 2
103	Wilson's tern	.....	5—16	.....	.....	.....	.....	.....	.....	.....	.....
104	Prairie horned lark	.....	5—30	.....	5—22	6—16	.....	.....	.....	4—23	.....
105	Whippoorwill	.....	5—30	5— 9	.....	5—15	5—24	.....	5—21	5—12	5—24
106	Herring gull	.....	.....	5— 4	.....	.....	.....	.....	.....	.....	.....
107	Chewink	.....	.....	5— 9	.....	.....	.....	.....	.....	.....	.....
108	Wild geese	.....	3—26	3—26	.....	4—16	1—19	.....	4—14	3—19	.....
109	Red-tailed hawk	.....	3—13	4— 3	.....	5—29	.....	.....	.....	3—24	2—28
110	Ruffed grouse	.....	4—24	4— 4	5— 6	5— 6	5—14	.....	4— 1	3—20	.....
111	Marsh hawk	.....	4—24	3—26	.....	4—28	5—15	4—11	.....	4— 7	4—14
112	Red-shouldered hawk	.....	5— 2	.....	.....	.....	.....	4—25	3—21	.....	3—19

		1903	1904	1905	1906	1907	1908	1909	1910	1911	1912
113	Great blue heron	.....	4—18	.....	.....	8—29	3—25	.....	.....	.....	.....
114	Pine warbler	.....	.....	.....	5—14	5—29	6— 3	5—18	5—25	.....	5—22
115	Loggerhead shrike	.....	.....	.....	.....	4—11	.....	.....	.....	.....	.....
116	Screech owl	.....	.....	.....	.....	5—22	.....	.....	.....	.....	.....
117	Bald eagle	.....	.....	.....	.....	5—22	5— 4	.....	.....	.....	.....
118	Hooded warbler	.....	.....	.....	.....	5—28	.....	.....	.....	.....	5—22
119	Blue-headed vireo	.....	.....	.....	.....	5—15	8— 9	5— 9	.....	5— 7	.....
120	American woodcock	.....	.....	.....	.....	5—15	8—14	.....	.....	.....	.....
121	Sparrow hawk	.....	.....	.....	.....	4—22	.....	4—29	.....	.....	4— 3
122	Broad-winged hawk	.....	.....	.....	.....	4—13	3—28	.....	5—25	.....	3—25
123	Cooper's hawk	.....	.....	.....	.....	5—29	.....	.....	.....	.....	.....
124	Canada Jay	.....	.....	.....	.....	11—24	1— 1	2—27	.....	.....	.....
125	Saw-whet owl	.....	.....	.....	.....	.....	3—14	.....	.....	2—17	.....
126	Acadian flycatcher	.....	.....	.....	.....	.....	5—19	.....	.....	6— 3	.....
127	Philadelphia vireo	.....	.....	.....	.....	.....	8—16	.....	.....	.....	.....
128	Pigeon hawk	.....	.....	.....	.....	.....	4—21	5— 3	.....	.....	.....
129	Bufflehead	.....	.....	.....	.....	.....	8—11	.....	.....	.....	.....
130	Cerulean warbler	.....	.....	.....	.....	.....	5—29	.....	.....	.....	.....
131	Carolina rail	.....	.....	.....	.....	.....	.....	.....	9—28	.....	.....
132	Meadowlark	.....	.....	.....	.....	.....	.....	.....	4—23	5—14	3—27
133	Grasshopper sparrow	.....	.....	.....	.....	.....	.....	.....	4—24	.....	5—26
134	Wood thrush	.....	.....	.....	.....	.....	.....	.....	6—19	6—29	.....
135	American goshawk	.....	.....	.....	.....	.....	.....	.....	.....	.....	2—28
136	B'k-crowned night heron	.....	.....	.....	.....	.....	.....	.....	.....	.....	5— 6
137	Red-headed woodpecker	.....	.....	.....	.....	.....	.....	.....	.....	.....	5—18
138	Red-throated loon	.....	.....	.....	.....	.....	.....	.....	.....	.....	11—17

CLUB MEMBERS BY GROUPS.

For the purpose of arranging the section meetings the members of the Vermont Bird Club have been grouped according to their accessibility to some good gathering place. This grouping is merely provisional and any member who finds some group more convenient than that to which he is assigned, should unite with the more convenient group. A notice of this change and any suggestions as to a better grouping will be appreciated by the editor. It is probable, if the section plan proves popular, that some of the larger groups may be further divided. It is hoped that this manner of grouping the names may put us more in touch with each other and serve as an introduction to all bird students living near each other.

BURLINGTON GROUP.

Mrs. Joseph Auld ..... Burlington
Mrs. M. H. Buckham ..... Burlington
Miss Clara Barton ..... Burlington
Miss Ida Brownell ..... Burlington
Byron N. Clark ..... Burlington
Prof. M. B. Cummings ..... Burlington
Miss Emma E. Drew ..... Burlington
Mrs. James Eaton ..... Burlington
Mrs. Nellie F. Flynn ..... Burlington
Mrs. Frederick Gay ..... Burlington
Miss Hattie M. Hodge ..... Burlington
Miss Mary Hickok ..... Burlington
W. B. Howe ..... Burlington
H. S. Howard ..... Burlington
Miss Ruth Henderson ..... Burlington
C. H. Jones ..... Burlington
Mrs. L. B. Lord ..... Burlington
Mrs. B. F. Lutman ..... Burlington
Miss S. A. Martin ..... Burlington
Mrs. W. B. McKillip ..... Burlington
Prof. G. H. Perkins ..... Burlington
Dr. H. F. Perkins ..... Burlington
Mrs. H. F. Perkins ..... Burlington
Miss Bessie Rust ..... Burlington

Mrs. H. T. Rutter ..... Burlington
Mrs. F. A. Richardson ..... Burlington
Miss Marion Richmond ..... Burlington
Mrs. A. B. Simonds ..... Burlington
E. B. Taft ..... Burlington
Miss Phoebe Towle ..... Burlington
Prof. J. W. Votey ..... Burlington
Mrs. J. W. Votey ..... Burlington
Mrs. Lillian Van Aken ..... Burlington
Mrs. H. S. Worcester ..... Burlington
Miss Katherine Worcester ..... Burlington
Mrs. Zella Newell ..... Colchester
Maynard S. Paige ..... Winooski
Dan D. Griffin ..... Winooski
Mrs. J. H. Billson ..... East Charlotte
Miss Cora I. Tarbox ..... Essex Junction
Frank Hoag ..... Grand Isle
Joseph Macomber ..... Grand Isle
Mrs. F. J. Macomber ..... Grand Isle
Mrs. D. H. Strong ..... Milton

RUTLAND GROUP.

L. F. Brehmer ..... Rutland
E. J. Briggs ..... Rutland
C. H. V. Coan ..... Rutland
Mrs. C. H. V. Coan ..... Rutland
R. V. N. Davis ..... Rutland
Mrs. F. E. D. Farmer ..... Rutland
Miss Cora G. B. Field ..... Rutland
Dr. C. A. Gale ..... Rutland
H. A. Hall ..... Rutland
Mrs. H. A. Hall ..... Rutland
Frank H. Hart ..... Rutland
Duane Kent ..... Rutland
George L. Kirk ..... Rutland
Miss E. Owen ..... Rutland
Miss Mildred E. Premo ..... Rutland
G. H. Ross ..... Rutland

Willis M. Ross ..... Rutland
Joseph Wellwood ..... Rutland
Miss Lena C. Ross ..... Rutland
L. Henry Potter ..... West Rutland
Mrs. Helen H. Bixby ..... Poultney
Miss A. L. Richardson ..... Poultney
Miss Mary E. Tuttle ..... Poultney
Miss Sarah L. Draper ..... Fair Haven
Washburn Fancher ..... Fair Haven
Miss Blanche Maxfield ..... New Haven
Miss Mary T. Randall ..... Pittsford
Dr. H. H. Swift ..... Pittsford
Miss Anna M. Granger ..... East Poultney
Miss Jean Harris ..... East Poultney
Rev. H. E. Weatherbee ..... East Poultney
Mrs. H. E. Weatherbee ..... East Poultney
Miss Martha N. Clark ..... South Wallingford
William Berg ..... Brandon
Rev. D. D. Chapin ..... Brandon
D. Lewis Dutton ..... Brandon
H. E. Farr ..... Brandon
Miss Shirley Farr ..... Brandon
Miss Carrie W. Ormsbee ..... Brandon

ST. JOHNSBURY GROUP.

Frank Brooks ..... St. Johnsbury
Mrs. Frank Brooks ..... St. Johnsbury
Miss Susan Clark ..... St. Johnsbury
Miss Emily Clark ..... St. Johnsbury
Miss Alice G. Clark ..... St. Johnsbury
Dr. Fanny Carlton ..... St. Johnsbury
C. H. Horton ..... St. Johnsbury
Miss Inez A. Howe ..... St. Johnsbury
Mrs. N. P. Lovering ..... St. Johnsbury
Miss Bridget Rooney ..... St. Johnsbury
Miss Mabel Stevens ..... St. Johnsbury
Capt. Stephen Waterman ..... St. Johnsbury
Miss Abbie E. Smith ..... East St. Johnsbury

Mrs. E. J. Blodgett ..... Lyndonville
Mrs. H. E. Folsom ..... Lyndonville
Mrs. Effie Houghton ..... Lyndonville
Mrs. W. W. Jeffers ..... Lyndonville
Mrs. H. W. Lyster ..... Lyndonville
Miss Elizabeth Hills ..... Lyndonville
Mrs. W. I. Powers ..... Lyndonville
Mrs. Harland Parker ..... Lyndonville
Miss Ida S. Pearl ..... Lyndonville
Miss Angie F. Willey ..... Lyndon Center
Mrs. George P. Ide ..... Lyndon
Miss Olive J. McLane ..... Ryegate
W. Dustin White ..... Ryegate
Mrs. W. Dustin White ..... Ryegate
R. G. Brock ..... Wells River
G. H. Parker ..... Wells River
Mrs. G. H. Parker ..... Wells River
Wendell P. Smith ..... Wells River
Rev. E. P. Brownell ..... West Barnet
Mrs. George W. Bixby ..... Derby Line

MONTPELIER GROUP.

Miss Drusilla Bailey ..... Montpelier
Mrs. L. P. Young ..... East Montpelier
Mrs. L. D. Coburn ..... East Montpelier
Miss Carrie B. Sibley ..... North Montpelier
Mrs. Edwin C. Hillis ..... North Montpelier
C. C. Pray ..... North Montpelier
Mrs. C. C. Pray ..... North Montpelier
William Barclay ..... Barre
John Booth ..... Barre
Miss Grace D. Barclay ..... Barre
Thomas J. Mercer ..... Barre
William G. S. Mercer ..... Barre
Miss Eunice D. Smith ..... Barre
Miss Sara E. Graves ..... Waterbury
Dr. G. Bidwell ..... Waterbury
M. W. Chaffee ..... Waterbury

Mrs. Alice M. Cooley ..... Waterbury
Mrs. Nellie G. Duffus ..... Waterbury
A. H. Smith ..... Waterbury
Mrs. A. H. Smith ..... Waterbury
D. J. Tarbell ..... Waterbury
Dr. W. L. Wasson ..... Waterbury
Mrs. W. L. Wasson ..... Waterbury
Mrs. Laura L. Amsworth ..... Williamstown
Mrs. Charles Seaver ..... Williamstown
Miss Mary E. Waterman ..... Williamstown
Mrs. Charles A. Riley ..... Stowe
H. E. Straw ..... Stowe
Mrs. H. E. Straw ..... Stowe
Mrs. E. H. Jones ..... Waitsfield
C. M. Richardson ..... Waitsfield
Mrs. C. M. Richardson ..... Waitsfield

WHITE RIVER JUNCTION GROUP.

George W. Fuller ..... White River Junction
Miss Anna P. Hazen ..... White River Junction
Mrs. Charles D. Hazen ..... White River Junction
Charles D. Hazen ..... White River Junction
Mrs. Charles D. Hazen, Jr. ..... White River Junction
Mrs. L. E. Merritt ..... Hartland
Miss Florence H. Sturtevant ..... Hartland
Jay G. Underwood ..... Hartland
Mrs. Jay G. Underwood ..... Hartland
C. C. Gates ..... North Hartland
Harold P. Rugg ..... Hanover, N. H.
Miss Eva D. Perkins ..... Quechee
Mrs. A. B. Morgan ..... Woodstock
Mrs. Franklin Billings ..... Woodstock
Miss Alice Eaton ..... Woodstock
Mrs. W. H. Moore ..... Woodstock
Mrs. George Merrill ..... Woodstock
Mrs. A. P. Morgan ..... Woodstock
Mrs. Clara V. Perkins ..... Woodstock
Miss Mabel A. Strong ..... Woodstock

Mrs. W. E. Mack ..... West Woodstock
Miss Minnie Metcalf ..... South Royalton
A. J. Eaton ..... South Royalton
Mrs. A. J. Eaton ..... South Royalton
C. P. Tarbell ..... South Royalton
Mrs. O. I. Morse ..... Royalton
Mrs. J. N. Miller ..... Bethel
George N. Miller ..... Bethel
Mrs. A. H. Colton ..... Post Mills

ST. ALBANS GROUP.

Miss Annie L. Holcomb ..... St. Albans
Miss Mary E. Jennison ..... St. Albans
Mrs. Nellie H. Woodworth ..... St. Albans
Miss Belle C. Stone ..... Enosburg Falls
Miss Jennie Perry ..... Fairfax
Hazen Wilcox ..... Fairfax

BENNINGTON GROUP.

Mrs. Joseph M. Ayres ..... Bennington
Howard Blackmer ..... Bennington
Mrs. W. H. Bradford ..... Bennington
Mrs. C. L. Holden ..... Bennington
Charles S. Hitchcock ..... Bennington
Mrs. A. J. Norton ..... Bennington
Mrs. E. H. Putnam ..... Bennington
Miss Jeanette Perkins ..... Bennington
Dr. L. H. Ross ..... Bennington
Mrs. L. H. Ross ..... Bennington
C. W. Thompson ..... Bennington
Miss Jennie A. Valentine ..... Bennington
Mrs. Mary E. Munson ..... Manchester
Miss Blanche Sprague ..... Stamford

MIDDLEBURY GROUP.

Dr. Ezra Brainerd ..... Middlebury
Mrs. W. E. Howard ..... Middlebury

A. I. Stuart ..... Middlebury
Rev. F. M. Wilson ..... Middlebury
Mrs. C. R. Benton ..... Vergennes
Miss Eva Meigs ..... Vergennes
Mrs. William J. Strong ..... Vergennes
A. C. Dike ..... Bristol
A. W. Eddy ..... Bristol
Miss Kate Stewart ..... Bristol
Mrs. Josephine S. Brown ..... Starksboro
Mrs. Alice S. Brown ..... Starksboro
Mrs. Henry Wade ..... Starksboro
C. S. Jones ..... Weybridge

BRATTLEBORO GROUP.

William C. Horton ..... Brattleboro
Mrs. E. B. Davenport ..... Brattleboro
W. H. Phillips ..... Brattleboro
Mrs. W. H. Phillips ..... Brattleboro
F. C. Wright ..... South Londonderry
Mrs. James Hartness ..... Springfield
Miss Nora E. Jaquith ..... Guilford
Harry L. Piper ..... Westminster
J. W. Collins ..... Westminster
O. P. Fullum ..... Westminster
Mrs. Mary Fullum ..... Westminster
A. E. Tuttle ..... Bellows Falls
Miss Mary Lawrence ..... Windham
H. L. Chapman ..... Windham

MORRISVILLE GROUP.

Mrs. Stella Goddard ..... Hyde Park
Mrs. H. M. McFarland ..... Hyde Park
H. A. Noyes ..... Hyde Park
Mrs. L. H. Noyes ..... Hyde Park
Mrs. Nora Scofield ..... Hyde Park
Carlton D. Howe ..... Morrisville
Mrs. Carlton D. Howe ..... Morrisville
Mrs. A. S. Hardy ..... Morrisville

Floyd Rice ..... Westford
Miss Meda Rice ..... Westford
Mrs. V. A. Stone ..... Westford
Miss Florence Smith ..... Westford
Miss Julia A. Chase ..... Bakersfield
Mrs. C. H. Morrill ..... Bakersfield
C. H. Morrill ..... Bakersfield
Miss Frances Hobart ..... Cambridge
Mrs. Inez Ballantyne ..... Hardwick

NON-RESIDENT MEMBERS.

John Ritchie, Jr. ..... Boston, Mass.
Miss Caroline P. White ..... Allston, Mass.
William Holden ..... Leominster, Mass.
Mrs. E. H. Terry ..... Northampton, Mass.
Miss Lucy White ..... Newton, Mass.
Miss Mary L. Sanford ..... North Adams, Mass.
Waldo L. Rich ..... Saratoga Springs, N. Y.
Mrs. Waldo L. Rich ..... Saratoga Springs, N. Y.
Miss Adelaide Denton ..... Saratoga Springs, N. Y.
Miss Zada Herrick ..... Saratoga Springs, N. Y.
Mrs. Emerson Davis ..... Saratoga Springs, N. Y.
Clifton D. Howe ..... Toronto, Ont.
W. H. Sabin ..... Lindsey, Cal.
Miss Ruth B. Fisher ..... New York.

THE MIGRATION LISTS.

Your attention is called to the migration blank enclosed in this bulletin. You are urged to fill out this blank as fully as possible and to send to the editor for more blanks when this is filled. Please send the lists to the editor as soon as possible after Jan. 1, 1914, so that they can be tabulated and presented at the next annual meeting of the club. They will be published in the 1914 bulletin. You are urged to send in your list, whether it is great or small, and to report any observations, especially about nests and young birds, which are not provided for on the blank. You are urged especially also to report observations of any kind about the song sparrow, to be used in the study undertaken by the club.

Vermont Bird Club

BULLETIN No. 8

March, 1914

Published Annually by the Club

Vermont Bird Club

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BURLINGTON, VT.:
FREE PRESS PRINTING COMPANY,
1914.

OFFICERS OF THE

VERMONT BIRD CLUB, 1914

PRESIDENT .....Dr. G. H. Perkins, Burlington

VICE-PRESIDENT .....Dr. L. H. Ross, Bennington

SECRETARY.....Mr. Carlton D. Howe, Morrisville

TREASURER.....Mr. Jay G. Underwood, Hartland

EDITOR OF BULLETIN

Mrs. A. B. Morgan, Woodstock.

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THE ANNUAL WINTER MEETING

The fourteenth annual winter meeting of the Vermont Bird Club was held in conjunction with the Vermont Botanical Club at the Williams Science Hall, University of Vermont, Burlington, Vt., on Friday and Saturday, Jan. 30 and 31, 1914. The first session began at 10 o'clock Friday A. M., with the President, Dr. G. H. Perkins, in the chair. Prof. G. P. Burns, Mrs. W. B. Jolley and Mr. H. G. Rugg were appointed a committee to make arrangements for the next summer meeting. The President appointed the following persons as members of the Nominating Committee for the two Clubs: Mr. D. S. Carpenter, Miss M. A. Strong, Mr. C. D. Howe. A report of the "Nature Club Committee" was presented by Mr. J. G. Underwood through Dr. H. F. Perkins. The report was adopted and it was voted to continue the committee. Mr. C. D. Howe presented the following resolution, which was adopted by a vote of the Club:

Resolved, That the members of the Vermont Bird Club work for and urge the passage of a law by the next General Assembly of Vermont making the State forests, heretofore and hereafter acquired by the State, reservations or refuges for bird and animal life.

The following papers were read: The Nesting of the Short-billed Marsh Wren in Vermont, by Mr. H. G. Rugg; Birds of the West Indies, by Mrs. Josephine Brown of Bristol; Birds of Florida, by Mrs. A. B. Morgan of Woodstock.

At the afternoon session Mrs. Nellie F. Flynn reported the summer meeting of 1913; Prof. G. P. Burns reported a plan for doing ecological work with birds and plants by local nature clubs; The Relation of Nature Clubs to the Schools, by Dr. H. F. Perkins; Duck Hawks in Rutland County, by Duane E. Kent of Rutland. The session closed with an illustrated lecture on Habitat Groups by Miss Alice W. Wilcox of the Fairbanks Museum of St. Johnsbury.

At six o'clock the annual supper and roll call was held at Grass Mount, followed by a lecture on Blackberries of Vermont, by Dr. Ezra Brainerd.

The following papers were read at the Saturday morning session: Birds of Bennington and Vicinity, by Dr. L. H. Ross; The Story of a Tame Robin, by Miss Cora G. B. Field of Rutland; A Short Story of an Unfortunate, by Mrs. Eliza F. Miller of Bethel; Nesting Habits of

the Song Sparrow, by Mr. G. Whittier Fuller of White River Junction; Wild Mammals of Vermont, by Mr. Frank S. Hoag of Cambridge.

The nominating committee presented the following officers for the ensuing year, who were elected by the vote of the Club: President, Dr. G. H. Perkins of Burlington; Vice-President, Dr. L. H. Ross of Bennington; Secretary, Mr. C. D. Howe of Morrisville; Treasurer, Mr. J. G. Underwood of Hartland; Editor of the Bulletin, Mrs. A. B. Morgan of Woodstock.

Thirty-three people were elected to the membership of the Club, whose names appear elsewhere. Adjournment.

C. D. HOWE, Secretary.

NEW MEMBERS OF THE BIRD CLUB

classified according to their respective groups:

BURLINGTON GROUP

Mrs. Guy B. Horton	Burlington
Miss S. Eldora Hodges	Burlington
Mr. Levi P. Smith	Burlington
Miss Bertha Terrill	Burlington
Miss Merle Hill	Hinesburg
Miss E. B. Jordan	Jericho Center

ST. JOHNSBURY GROUP

Miss Amy J. Bartlett	St. Johnsbury
Miss Katherine Bingham	St. Johnsbury
Miss Abbie Dillingham	St. Johnsbury
Miss Eleanor Doran	St. Johnsbury
Miss Dorothy Fairbanks	St. Johnsbury
Mrs. Rebecca Fairbanks	St. Johnsbury
Mrs. Alvin W. Flint	St. Johnsbury
Mrs. Arthur H. Gleason	St. Johnsbury
Rev. Edward P. Lee	St. Johnsbury
Mrs. Edward P. Lee	St. Johnsbury
Mrs. Paul D. Moody	St. Johnsbury
Miss Isabel F. Noyes	St. Johnsbury
Miss Bernice Pierce	St. Johnsbury
Miss Anna Stevens	St. Johnsbury

Mr. Arthur F. Stone ..... St. Johnsbury
Miss Mabel A. Shields ..... St. Johnsbury
Mr. Ernest F. Skinner ..... Passumpsic
Miss Mary L. Wheeler ..... Barton

MONTPELIER GROUP

Rev. Albertie Phillipps ..... East Montpelier
Miss Evelyn Coburn ..... Plainfield
Miss Belle Anderson ..... Waterbury

WHITE RIVER JUNCTION GROUP

Miss Elizabeth Billings ..... Woodstock
Mr. Walter C. Low ..... Fairlee
Mrs. Walter C. Low ..... Fairlee

BENNINGTON GROUP

Miss Emma L. Harwood ..... Bennington

BRATTLEBORO GROUP

Miss Elizabeth Bagg ..... Brattleboro

NON-RESIDENT

Mr. Francis Elijah Morse ..... Boston

TREASURER'S REPORT

JANUARY 24, 1914

RECEIPTS

On hand Feb. 1, 1913	$60 83
Annual dues received	103 00
Life membership received	10 00
Miscellaneous	20
Vermont Botanical Club, expenses	5 33
	$179 36

PAID

Winter meeting, Feb. 19, 1913, expenses	$ 5 95
Summer meeting, 1913, expenses	6 65
Bird Section work	6 27
Migration blanks	8 00
Bulletin expenses	56 68

Treasurer's expenses	30 34
Vermont Botanical Club, one-half expense Foresters	1 32
Life membership deposited in bank	10 00
Vermont Botanical Club, expenses summer meeting	5 33
	$130 54
Jan. 24, 1914, cash on hand	48 82
	$179 36

LIFE MEMBERSHIP FUND

Deposited in Chittenden County Trust Co., two life memberships	$ 20 00
Accrued interest	1 10
Total	$ 21 10

JAY G. UNDERWOOD, Treas.

Read and accepted Jan. 31, 1914.

EXTRACT FROM THE SHIRAS-WEEKS-McLEAN MIGRATORY BIRD LAW

REGULATIONS FOR THE PROTECTION OF MIGRATORY BIRDS

Regulation I. Definitions—For the purposes of these regulations the following shall be considered migratory game birds:

(a) Anatidae or waterfowl, brant, wild ducks, geese and swans.

(b) Gruidae or cranes, including little brown, sandhill, and whooping cranes.

(c) Rallidae or rails, including coots, gallinules, and sora and other rails.

(d) Limicolae or shore birds, including avocets, curlew, dowitchers, godwits, knots, oyster catchers, phalaropes, plover, sandpipers, snipe, stilts, surf birds, turnstones, willet, woodcock and yellowlegs.

(e) Columbidae or pigeons, including doves and wild pigeons.

For the purposes of these regulations the following shall be considered migratory insectivorous birds:

(f) Bobolinks, catbirds, chickadees, cuckoos, flycatchers, grosbeaks, humming birds, kinglets, martins, meadow larks, night

hawks or bull bats, nuthatches, orioles, robins, shrikes, swallows, swifts, tanagers, titmice, thrushes, vireos, warblers, waxwings, whippoorwills, woodpeckers, and wrens, and all perching birds which feed entirely or chiefly on insects.

Other regulations of the bill include No. 2, closed season at night; Reg. No. 3, closed season on insectivorous birds; Reg. No. 4, five-year closed season on certain game birds; Reg. No. 5, closed season on certain navigable rivers; Reg. No. 6, zones; Reg. No. 7, construction; Regs. Nos. 8 and 9, closed seasons in zone Nos. 1 and 2.

LOCAL NATURE CLUBS IN VERMONT

JAY G. UNDERWOOD, Hartland

There are three active Nature Clubs to my knowledge in the State, the Arboreta Walking Club, Burlington; the Burlington Nature Club, and the Hartland Nature Club.

The Arboreta Walking Club was organized Oct. 1, 1910. There are seventeen active members and five honorary members. The admission fee is 25 cents and the annual dues are 60 cents. Fifty-two meetings were held during 1913. One field trip was taken by the Club members, and there have been on the average two walks per week taken by individuals for study. During the past year a special study has been made of biology and kindred subjects. The secretary is Miss Ethel W. Robbins, 249 Church St., Burlington.

The Burlington Nature Club was organized April 27, 1905, at an informal meeting which followed a lecture by Prof. George H. Hudson on "The Camera as an Aid to Nature Study." It was the desire of several of the members of the State Bird and Botanical Clubs in forming a local society to conserve and use some of the enthusiasm engendered by the annual meetings and to arouse a general interest in the community in nature subjects.

The organization is as informal as possible. The officers consist of a president and a secretary-treasurer. The only regular meeting is the annual one on Arbor Day. There are no dues except the initial membership fee of 25 cents. The plan of the Club has been to take tramps under the leadership of some local nature student; to occasionally take a more ambitious trip, as on one occasion it went by steamer

to Four Brothers Islands to study the herring-gull; and to co-operate with the city library and the public schools in nature work.

The secretary is Mrs. Hattie K. Forbes, 215 Pearl St., Burlington.

The Hartland Nature Club was organized in 1907, has fifty members, admission fee and annual dues 50 cents. In 1913 the Club held twelve regular monthly meetings, of which the five of summer were in the field. It has an herbarium of about 1,500 sheets, nearly all Vermont species. It has a valuable collection of insects in Denton mounts and case provided by the generosity of one of its members. A miscellaneous collection of interesting specimens as well as the beginnings of a nature library adds to its ability to reach those of varying tastes in nature subjects. Perhaps its continued success is largely due to the fact that several of its members are thoroughly interested and scientifically inclined, as well as to the plan of meeting but once a month. The secretary is Miss Emeline Webster, Hartland. Following is the program for 1914:

PROGRAM OF THE HARTLAND NATURE CLUB FOR 1914

Meetings—The second Saturday of each month. From May to September inclusive, meetings are out of doors. The mornings are devoted to exploring epeditions with basket picnic at one. Localities are given on the program. The February, March and April meetings will be held at the home of some member in the village. The place of the fall meetings will be announced later.

Afternoon program: Two to three, business and reports; three to four, papers. Club called to order and meetings close on time.

Special Work—The special work suggested for the Club for this year is as follows: Practical uses of our native plants continued; the study of grasses and insects.

January 13—Annual meeting and roll call.

February 14—Book reviews, Mrs. Miller, Mrs. Johnston; Nature Work in School, Miss Lobdell.

March 14—Trees in Winter, Mrs. Underwood; Abandoned Industries, Mr. Ruggles.

April 11—Ten Butterflies We Should Know, Mrs. Durphey; Snow Shoes and Nature, Mr. Graham.

May 9 (Meeting at center of the town)—Observations on Salentia, Miss Emeline Webster; Observations on Birds, Mrs. Moore.

June 13 (Exploration of Snail Swamp)—Uses of Our Trees: for Fuel and Timber, Miss Rogers; for Food, Miss Webster.

July 11 (Exploration of Spruce Swamp)—Subject to be announced later, Miss Sturtevant; A Dozen Moths We Should Know, Mr. Rugg.

August 8 (Visitors' meeting at "The Highlands")—Notes, Miss Billings; paper, to be announced.

September 12 (Meeting near the river, opposite Hart Island)—Grasses of "The Highlands," Miss Darling; Animals and Insects of "The Highlands," Mrs. Morgan.

October 8—Why We Should Know Our Wild Berries, Mrs. Merritt; Pebbles, Miss Nelson.

November 14—Nature in My Garden, Miss Penniman; A Few of the Insects Seen on Hart Island, Mr. Underwood.

December 12—Baskets, Mrs. Spear; Symposium on Basket Making with Exhibit; Our Game and Water Birds, Mr. John Webster.

Editor-in-Chief—Miss Darling.

Sub-Editors—Astronomy, Mr. Graham; Animals (including all animal life except birds and insects), Mrs. Durphey; Birds, Mrs. Merritt; Insects, Mrs. Morgan; Plants, Mr. Rugg; Geology, Mr. Ruggles; Microscopy, Mrs. D. C. Webster.

Officers—President, Miss Nelson; Vice-President, Mr. Underwood; Sec'y-Treasurer, Miss Emeline Webster; Executive Committee, Miss Webster, Mr. Rugg, with the above officers; Curator, Mrs. Underwood.

Mrs. Straw of Stowe reports that there is an enthusiastic Nature Club in Montpelier, but I have been unable to obtain information concerning it.

Apart from these clubs much interesting and efficient work is being done by various organizations in the State, the Fairbanks Museum at St. Johnsbury taking high rank. The following outline of lectures gives a good idea of the work done there:

1. Why Study Birds?—Oct. 30, 1913.
2. Plumage of Birds—Nov. 18, 1913.
3. Our Permanent Residents—Nov. 25, 1913.
4. Winter Habits of Birds—Dec. 16, 1913.
5. Migration—Jan. 20, 1914.
6. The Bird: its Structure and Functions—Jan. 27, 1914.
7. Home-life of Wild Birds—Feb. 17, 1914.
8. Bird-Song—Feb. 24, 1914.
9. General discussions—March 17, 1914.
10. Water Birds—March 24, 1914.

The Librarian of the Bennington Public Library and a teacher in the High School are doing active work in interesting the young people in nature study, and nearly all the libraries of the larger towns are emphasizing this phase of their work.

The Camp Fire Girls and Boy Scouts are two organizations in which nature work is a special feature. The exploration of a cave by Boy Scouts under a scout master of Proctor led to the discovery of a bat new to science, as well as the addition of other members of the bat tribe to the mammals of Vermont.

The Audubon Society recently re-organized under the leadership of Dr. A. E. Lambert of Middlebury College, is now in a position to do efficient work.

Clubs that have been active in the past are the Brandon Nature Club, the Brattleboro Club under the inspiration of Mrs. E. B. Davenport, the Bellows Falls Bird Club, and the Woodstock Nature Club. Summer classes in natural history under the able leadership of Prof. A. P. Morse of Wellesley College have created in Woodstock and vicinity renewed interest and enthusiasm.

A project, known as the section plan, suggested by Mr. Harry L. Piper, proposes to form the members of the State Clubs into nuclei for local clubs, so that members and all interested in nature study in adjoining towns may receive help and inspiration by meeting together. A meeting of this kind was held in September at the home of Miss Elizabeth Billings, Woodstock, when the White River Junction group and the Hartland Nature Club met in joint session. This same group plans to hold a meeting in May at White River Junction. Active cooperation on the part of every member of the State Clubs in this plan is earnestly desired.

In closing this brief survey of the facts which I have been able to gather about Nature Study in Vermont at the present time, I wish to urge the organized clubs to seek to reach the isolated nature students of our small towns and offer them help, fellowship and encouragement as well as to indicate to them some definite studies to follow.

RELATION OF NATURE CLUBS TO THE SCHOOLS

DR. HENRY F. PERKINS, University of Vermont

A. Organizing school clubs.
B. Exhibits.
C. Organizing and directing or assisting in field trips.
D. Vacation work.
E. Lectures and talks at the schools.

In order to interest the children in various kinds of nature work, it may be carried on as a club, rather than as a class in the school. The teacher or one of the outside members of the club may supervise the club, but the conference and constitution, if any, and the details of the plans should be entirely in the hands of the children themselves. In some local nature clubs this work with the children constitutes the most promising and interesting part of the activities of the organization and it reacts favorably on the interest of all the members. Such school clubs may work out their own programs, which would probably include some or all of the following:

1. Spring reports of birds and wild flowers seen by the children promotes a friendly rivalry in getting the first records and longest lists. Collecting of wild flowers and observing the nesting habits and feeding of birds.

2. Summer vacation. Members of club who remain at home during the summer or who are together in small groups at camping places, etc., will continue their study of flowers and birds and add a study of rocks and the stars, and other objects of nature, reporting at intervals to the teacher or club leader.

3. Autumn. Reports will be made in school of the activities of the members during vacation and suitable recognition may be made of the best work by the members. Friends may be interested to the extent of giving small prizes, such as books on nature study. Work for the winter may be organized and a preliminary study of the plants or animals upon which work is to be done may be carried on.

4. Winter. Feeding of birds at the schools and at the homes, or at bird lunch counters, maintained at various points by the parent club. The trees offer very considerable material for the winter study and encourage out-of-door trips by the pupils. The evergreens may be taken first. A simple descriptive pamphlet should be put in the hands of the members and specimens of foliage and fruit gathered and put

on exhibition in the schools. Competitions may be arranged for best collections in the point of quality and number of specimens and correctness of naming. Other tree groups may be taken in succession. The best specimens collected by the children may be put on exhibition in some public place, such as the local library, at close of the work.

It is the aim of the plan outlined above to interest children in our schools in nature for the sake of the pleasure that they get out of it. It should produce interest in careful observation of nature and a desire to learn all that they can about what they see and collect. Hasty observation and uncertain identifying of specimens should be strictly ruled out by the teacher or other person in charge of the work of the club. In this way a premium is placed upon careful, accurate work, and that should always be emphasized, rather than longest lists and largest collections made. It is my personal opinion that this sort of organized work, supervised by a capable person, is apt to be of at least as much value as the nature study included in the ordinary school curriculum.

B. Exhibits. When it is not convenient for one person to take the direction of the nature club and attend to all the details attended with it, others may be enlisted in preparation of the school exhibits, the identification of plants and birds, which are at all difficult to make out and the assembling of choice specimens in some central place. This should be a clearing house for the collections in the schools and should represent the older club members as well as the school club. The best illustration of this that is at hand is the exhibit maintained by the Museum of Natural History at St. Johnsbury. Not only should the specimens be put on exhibition correctly named, but so far as possible, interesting data in regard to the distribution, habits and frequency of occurrence should appear in neat and legible labels. The newspapers may be glad to co-operate by publishing on certain days the lists as they are made out by the representative of the Nature Club, and especial pains should be taken to give the young members credit for their observations.

C. Field trips. The trips which children may be encouraged to take in small groups may be depended upon to do the most of the work that is outlined above. It will be advisable, however, to organize trips of the nature clubs on which children are invited to go. The trips should be planned with this in view; should, therefore, not be too long as to length, or too difficult. A mistake is apt to be made

in this connection in taking the trip too seriously, trying to go too far or to see too many or too remarkable phenomena.

D. Vacation work. It is during the vacations, not only the summer vacations, but also those that come in the winter and spring, that the parents and children can work together to the best advantage in making progress in the observation and study of nature. If the trips which are organized are planned to be in the nature of picnics, either by land or by water, the numbers of children and adults who will be glad to participate will be thereby increased. The children should be encouraged and helped to write down their observations to use when school opens in giving their reports.

If the schools offer courses in nature study, these plans may be somewhat modified and the purpose of making the work as enjoyable as possible and encouraging out-of-door life and trips into the woods will be found a valuable aid by the school teacher.

The suggestions given above are planned in hope that it may be possible to make such organized effort on the part of the grown-ups, and the children also, tend toward the increase of interest and enjoyment that we should all take in the objects for which the Botanical and Bird Clubs were organized and are so hopefully maintained.

NESTING OF THE SHORT-BILLED MARSH WREN IN VERMONT

HAROLD G. RUGG, Hanover

This last summer it was my good fortune to visit with two other members of the Hanover Bird Club, a swamp in Thetford, Vt., long famous to the bird lovers of Hanover. I was induced to take the trip on being assured that I should see a colony of the short-billed marsh wren. On previous visits the same season to this swamp, my friends had found nests of the marsh hawk containing four eggs, of the American bittern containing five eggs, and nests of some of the smaller birds as well as one of this rare little wren.

I had hoped to find this swamp interesting also from a botanical point of view, but was disappointed. The vegetation in this Thetford swamp, several acres in extent, is mainly grasses and sedges with alder scrub. Wading through the deep sedges I was soon startled by

a song new to me and of such quality that I at once knew that it must be that of the wren in question. These birds were fairly common in this swamp. They were usually carefully concealed and were singing while clinging to some swaying bit of grass. When one bird had been located and its habits noted, the others were not so difficult to find. This nest discovered on a previous expedition was found to be deserted and so was taken for the Hanover collection. It is stated that this wren has the habit of building several nests in one season and that this is done for purposes of protection. This nest, globular in shape, entirely of old dried sedges and grasses lined with dry leaves and a little plant down, was only about two feet from the ground and fastened to a tussock of growing sedges, undoubtedly some species of carex, which my botanical friends would recognize.

This wren is, I believe, rather rare throughout New England, and so far as I know this is the first record of the bird for Vermont. It has nested in this same swamp for two years. The entire upper parts of this wren are streaked with white, black, and buff, wing and tail coverts are barred, the under parts unbarred and white. The call notes, says Seton, are like the sound of two tiny pebbles struck together. The song has the same quality as the call notes.

Later in the season the swamp was visited by others, a specimen of the short-billed marsh wren was taken and placed in the Museum at Hanover, so that now there is no question as to the authenticity of the bird.

In this same swamp, the swamp sparrow also was common. A song unfamiliar to us all was frequently heard, and the bird finally located with much difficulty. This bird was a sparrow without doubt and after considerable study it was verified as the rare Henslow's sparrow.

BIRDS OF THE WEST INDIES

JOSEPHINE S. BROWN, Bristol

Birds of the West Indies was the name I gave my paper, but I think a more appropriate title would have been, Scarcity of Birds in the West Indies. It is lamentably true that there are few song birds in that beautiful tropical country.

Did you ever stop to think how much sweetness would be lost to the landscape if the feathered songsters were eliminated from it? This never came to me very forcibly until I visited one of the loveliest spots on earth and realized that somehow, in spite of all its marvelous loveliness to the eye, it was dumb and lacking in some vital respect. At last it came to me, this place lacks but one thing to make it almost an earthly paradise, and that real thing is birds.

Down there I saw the beauties of the bluest of skies, a verdure of surpassing loveliness and its tropical vivid colored waters, constantly changing from pale blue to green and sapphire colors that artists cannot do justice to, but for hours and even days at a time not a single song came from a bird's throat. It is difficult to quite describe the sense of sadness, almost desolation, which this birdless paradise brought to me. This so troubled me that I began to inquire into the reason, and was told that song birds had become practically extinct by natives killing and trapping them in every conceivable way. There are laws now for their protection, but the mischief has been done and with the small number of song birds left, it will be years before they will multiply sufficiently to repopulate the woods and fields to anything like the extent of bird life we enjoy in the United States.

I was told the pretty little yellow banana birds are increasing quite fast, also the sugar bird. I saw only one mocking bird in my three months' stay, where they used to be plentiful, I was told. An American going into a country where bird life has been reduced almost to the vanishing point, naturally compels one to ask what do the birds give us in return for the mere chance to live? They ask so little from us in exchange for their unstinted outpouring of friendly song. God has made all things beautiful and I think it must please Him when He sees us love, protect and admire them.

"PITTY BABE" (MERULA MIGRATORIA)

CORA G. B. FIELD, Rutland

Some of us are born to responsibility; some achieve responsibilities, and some have robins presented to us.

Significant events often come unheralded; sauntering into our lives in the most casual manner, and incognito; and when in early

autumn a frightened, rumpled baby-robin was placed in my hands, together with a tiny vial of chloroform, there was no intimation of the dominant factor he would become in my life through the impress of his strong individuality.

Fate, in the shape of a sudden, summer storm had tossed him homeless and helpless, into the tender care of "Little Missy" and "Bud."

The nestling partners of his desperate plight succumbed to the strenuous experience; but he survived; and with a devoted household to dance attendance from four o'clock (A. M.) till "sleepy time" he grew and waxed strong and was duly christened "Robbie."

With the freedom of house and grounds he came and went in fearless familiarity. When his sponsors left Vermont for their southern home Robbie was elected a fellow-traveler, but with misgivings that justified the chloroform. At Rutland he had so nearly committed suicide, in his terror, that he was surrendered to my care and discretion. A branch of a tree was brought into the house for a perch and haven of refuge, and from this point of vantage he took a bird's-eye view of his surroundings and soon dominated the situation. The chloroform bottle retired further and further into the recesses of the medicine closet, but Pitty Babe holds the center of the stage in our family circle. His new name was given him when it became evident that he was not to be classed with the common or garden variety of robins; nor considered merely a piece of mechanism, a thing of utility, an ordinary insect destroyer; but a bit of imprisoned life, intelligence and individuality; and no interpretation of him can be purely technical and coldly scientific. In bird-dom he emphatically is sui generis, developing unexpected traits and, with close human companionship, some almost human attributes. The abrupt transition from country solitudes to city sights and sounds; from the freedom of the open to impenetrable walls, from natural to artificial diet, was sorely trying. We soothed his little timidities, respected his little reserves, sympathized with his little trials. He soon recovered his wonted poise and cheeriness and charmed us with soft trilling notes from a tremulous ruffled throat. But presently he ceased this and seemed to have forgotten the songs his mother used to sing. He makes more civilized, far less musical sounds,—for he talks! He tilts his head and listens while we murmur in his ear, "What a joy you are, Pitty Babe, you are almost too good to be true." Then he braces himself. His eyes widen. He makes strange sounds in his swelling throat. He answers! Only to

the initiated is it given to interpret them, but always his various calls are responsive and significant. He kisses prettily; putting up his bill and giving a dainty little peck; though to me the experience is a good deal like kissing a carpet tack. Then he cuddles under my chin. I close my eyes. He closes his eyes. I peep and he peeps and seems thoroughly to enjoy this game of hide and seek. From the first he has manifested this spirit of camaraderie and has never learned to flock by himself, but cries complainingly if left alone. After a little, a large cage was hung in a vine-shaded window. In it tempting food was placed and gradually he was beguiled therein—and the door was closed. In pathetic bewilderment he searched vainly for the door that was and then was not. A Peri at the gates! He submitted, finally, to the inevitable; but he had learned the universal lesson—the faithlessness of the human kind. He had been tricked and trapped, and though loosed again, not for many a day would he come, as twilight fell, to nestle on my shoulder, but when the lights came out he fled swiftly to some high, dark refuge, and crouched silent and watchful, resenting approach and capture with sharp nips and quite unseemly language. This was the first dawning upon his bird mind of the unreliability of the human, and though reconciled now to occasional and necessary captivity, the iron of suspicion has evidently entered his soul. He trusts us with mental reservations, as if our tenderest advances might conceal some ulterior and sinister motive. He has a singularly measuring look with which he "sizes us up" and that gives one a breathless, hoping, fearing, at-the-bar-of-judgment feeling, as if daring the fiat of the elemental,—of generic love and faith and truth. At night Pitty Babe is a fine example of the promptings of racial instinct; striving restlessly for the highest branches of his ancestral tree; springing upward from his topmost perch and bumping his head, unheeded against his cage. He has never forgotten his early life of freedom on his native heath and gazes into the blue with fixed eye and plaintive, moaning sound.

He follows the flight of the pigeons with a cry that plainly says "O, for the wings of a dove!" The first falling snow was a source of surprise and perplexity. He watched the large flakes float by as if wondering whether they were a strange variety of insect or white-winged birds fallen from a white bird-paradise in the skies. In May he began moulting. With the loss of his feathers there fell upon him a melancholy and loss of self-confidence. There is undeniable moral

support in being well dressed and a very "Ragged Robin" would stand motionless before the mirror and survey himself long and solemnly in apparent disapproval. With the loss of his tail for a rudder his flight was awkward and uncertain. We then called him "Bobs" for short. He would launch himself with a scream of doubt and fear, alighting on my shoulder with an air of astonishment that he should safely have arrived. But his plumage is coming in richer, darker and with different markings. Some of his tail feathers are tipped with white. His vanity is reasserting itself. He struts self-consciously and we now call him the "Major." He poses for his picture with keen interest in its progress. Then he attempts to draw the finished likeness into his cage together with all the brushes he can reach.

For his own amusement he is allowed my best double-ender camel's-hair, which he worries to a frazzle. It is fun for him but death to the brush;—but—what would you? He has various self-taught stunts; for instance, he jumps over an alarm clock, hitting the bell with his toes, listens intently to see where the sound comes from, and repeats the performance. He is always on a still hunt for rubber bands. He pecks and kills these near-worms and swallows them hastily in some secluded corner, with one eye on us; for hasn't he often been "unravelled" before he could actually encompass them? "They will give you a pain in your midst," I say severely; "besides, a bird full of rubber bands is liable to bounce up into the air and *never* come down again!"

When scolded for his offences he cries resentfully but rarely repeats them without peeping to see if he is observed; and if so he expresses his feelings by climbing to his highest perch, turning his back upon us and gazing steadily out of the window. The hauteur of that back is the most impressive thing I ever saw!

While hunting for the traditional early worm he pulls up tender young plants and chews off their roots, hurring from one to another in a carnival of mischief. "Bad boy, stop it!" I command. He crouches low and looking up into my face begs, in the most appealing tone, "O please let me just this once!" I surrender, horse, foot and dragoon. "O Pitty Babe, you can have anything in this house that you want, when you ask like that!" He can now lead me with a string. My knowledge of robins, you perceive, is entirely theoretical and academic and it is evident that I am training him along the lines of least resistance. In point of fact *I* am the one in training, and I am learning

many things, as one may by merging one's own individuality in another's, even a bird's.

In her idyllic sequel to the Secret Garden Mrs. (Frances Hodgson) Burnett says that an intimacy with an English Robin is a liberal education. She spells it with a capital "R" because he is a "person," an "aristocrat," "patrician"; but while my more democratic American robin answers to the roll-call of the thrushes he is no less a "person" and a "little Soul," a harmony of vibrant life, color and sound.

Also he is quite as clever and has more psychology, because, instead of natural development in the open, there is necessary adaptation to human environment, and enforced cerebration along evolutionary lines that leads one to speculate on future possibilities.

But to become wholly en rapport, one must be a robin to a robin; of another, and perhaps not entirely superior, order, and yet a robin. So, following Mrs. Burnett's formula, I tried to establish kinship with this "little Soul." "I held myself very still and made tender little robin sounds. I shut my eyes and *felt* like a robin. I made magic. I lured him with the other and more exquisite sense that speaks without speech," she says.

So I studied the different robin calls as they sounded from matin to vesper in the high elms near by. I twittered and chirped and cheeped. I made shrill sounds, soft sounds; wierd, unholy sounds some of them were, but that improved with diligent practice. I cultivated a clear, high whistle till it became chronic, automatic; in short, that whistled itself and finally developed into a robust, full-grown whistle that any small boy might be proud of.

I did not, myself, know what all these various sounds stood for, but flattered myself that a robin could interpret them. At least it was orthodox robin language, and so I never fail to send a robin's "Good Morning" through the rooms and instantly comes a responsive cry that ends in a rather amateurish whistle,—for Pitty Babe is learning the trick. But he is not deceived. He knows I am only a near-robin and that the call does not come from the high elms. Nevertheless, later, I receive a surprisingly sweet reward.

Concealed in the woodbines I whistle softly, coaxingly. There is a flash of color and a pretty Miss Merula drops from the blue and alights on the telephone wires. She is deceived. She thinks that Pitty Babe is calling her from his cage among the vines. She trills softly. Pitty Babe chirps sociably. I whistle alluringly. She drifts

from the wire to the trellis. Feminine curiosity, sympathy,—what not?—draws her close to his prison bars. Each eyes the other in a tenderly tentative way. I, the understudy, keep up the mono-dialogue from the sheltering vines. The moment is tense with dramatic significance. What next? Perhaps I am not saying the expected thing. Perhaps there was a rustle among the leaves. Perhaps the instinct of all wild things warns her. There is a sudden flirt of wings and she is off. But at least, in actual bird language, I have wooed and won a wildling. She will come again; though what I really said I wish I knew as well as did Miss Merula. Later she came with a tender, pink spring worm looped in her bill, and Eve-like, tempted Pitty Babe. Then, believe it, with unexpected heartlessness she coolly ate it herself before his reproachful eyes while his mouth worked hungrily, sympathetically, ludicrously. But mostly now she keeps to the lawn and garden-closes trailing soberly in the wake of her handsome, portly spouse; grubbing for worms—and "things"—and apparently quite forgetful of her earlier romance. Only apparently, for in his momentary absences she makes swift, surreptitious flights to her captive charmer.

When it comes to a question of diet, Pitty Babe seems to be acquiring a taste for civilized food. He drinks milk, eats berries, raisins, fruit, oysters, broiled steak, warm rolls and ice cream, always refusing sweets.

If we insist on his taking something he dislikes, after his first polite refusal he indignantly seizes it, throws it away as far as possible, then disciplines us with deliberate and vigorous pecks.

Discarding his cannabalistic tendencies he uses angle worms for footballs, throwing and kicking them about so vigorously that it is incumbent upon us to walk a straight and narrow path with due discretion, or find ourselves doing an involuntary Tarantella at this "Diet of Worms."

He would *prefer* to take his food directly from our lips—on the principle of trying it on the dog—and he fails to understand why we draw the line at ants and angleworms! But above all things he loves to eat soured milk with Grandma, perhaps because it is supposed to make people live forever; and a pretty picture they make together.

With head cocked on one side he waits till she gets busy with the sugar, etcetera, and then sidles up and helps himself.

Sometimes he edges around to her side of the saucer. She raps him with the spoon. "Keep your own side of the dish!" says Grandma.

"Haven't you any manners? Youngsters now-a-days seem to have no respect for their elders, at all!"

He takes the hint with the rap and thereafter makes little darts between "spoons," so to speak.

His extreme interest in human affairs nearly proved his undoing, for he one day slyly sipped a few drops of muriatic acid. An expression of having been struck by lightning passed over his features. We gave him much milk and then alcohol and water—after frantically calling up a drug store—and presently he began doing a cake walk in his cage. He lifted his feet very high and carefully as if the floor were coming up to meet him. He side-stepped. He eyed us vacantly and foolishly. Finally he braced himself against the side of his cage, sat down on his (then) stub of a tail, and with outstretched legs and drooping head went suddenly to sleep. Notwithstanding his Puritan upbringing he was hopelessly, emphatically—*on a spree!* For two hours he slept; then he yawned, and with a "morning-after" look and manner climbed unsteadily to his perch and put his head under his wing. It was manifestly a case of intoxication—first offence.

Undoubtedly his greatest accomplishment is a game of his own invention. When his bath is set out he tears up bits of newspaper and throws them into the water, watching his miniature boats sail about till water-logged, when he pulls them out and throws in fresh bits.

At this moment as I write he alights softly upon my desk to censor this article, of which he apparently disapproves. For a moment he holds an abstracted, statuesque pose; then, with malice aforethought, he snatches the papers and scatters them far and wide. Pens and pencils fly fast and faster, and his obvious attempts to distract my attention will account for the evident hiatus in my narrative at this point.

Pitty Babe's future is problematical. Will it be the chloroform and a final sleep or, if freed under his native vine and fig-tree, would he, we had asked, grow self-reliant and migrate with his kind, leaving us only a delightful memory of a vital, vivid, throbbing personality?

I had never, in the two years and a half, opened an outer door without first locating him at a safe distance, but one day as an arrow from a bow a shadow darted past me, poised on the vines, and sailed away into the high elm from whence a burst of robin melody fell upon my astonished ears. Followed several anxious hours of callings, and coaxings, trailing Pitty Babe from tree to tree. Twilight and a light

rain—and frightened by street noises and glare of electric lights, he disappeared. The next day the papers advertised his loss.

News boys and letter carriers had an eye cocked toward the heavens. Old ladies along the street craned their necks skyward. School children were enlisted. The rain fell steadily and I, wet and woebegone, haunted the wooded outskirts and all likely and unlikely places where I imagined P. B. might be hiding cold, wet and hungry searching vainly for ice cream and raisins in some elm or maple tree. No tidings came and another wet, windy night and day followed. If I found him at all I should find only his pitiful little body I thought; and then over the telephone came the message that a robin—a tame robin—a very, very tame robin had with great discrimination selected a home in the best residential part of the city and appeared confidently at the window expecting the food that was immediately handed out. He had kept to the porch and at night without using any discrimination at all he followed his instincts and perched in a tree in a heavy wind and rain. I stood not upon the order of my going and presently a very wet and bedraggled missus confronted a very wet and bedraggled robin, too miserable to cheep and with dull and half closed eyes. I placed a raisin between my lips. "O, Pitty Babe, want some?" I said. He snatched it greedily.

I snatched *him* greedily and popped him into a basket. He was all day getting warm and dry and—would you believe it, he still cast longing glances toward the high elm, and exchanged many confidences with the sparrows outside, and early the next morning he ungratefully came to my door and *said things* loudly and protestingly; yes, he was actually profane. His saviour was his jailer and the call of the wild was very strong.

But he is now again domesticated, cheeping at the door to be let in; hovering restlessly about me at sleepy time and when I say "Want to go to bed, Pitty Babe?" following like a kitten to his own particular section of the studio from whence will come his matin song of another day.

So I repeat, Pitty Babe's future is problematical.

[ABSTRACT]

NOTES ON THE NESTING HABITS OF DUCK HAWKS IN RUTLAND COUNTY

DUANE E. KENT, Rutland

The duck hawk can be called almost common in and near Rutland county, for since 1895 the writer has known of eight cliff nesting sites of this interesting bird of prey, and has received information of still more of which he has not personal knowledge. The birds, with the possible exception of one or two pair, return to these localities every year. They are always very much attached to favorite spots and it takes repeated disturbance to drive them away.

The first nest that I ever saw was at White Rocks in Wallingford in 1895. My brother, Wyatt A. Kent, and I visited this nest a number of seasons. In 1912 Jay G. Underwood and George L. Kirk reported seeing two duck hawks in April at Bird mountain in the town of Castleton. Later we visited this place and found the birds nesting in a very inaccessible cliff on the south side of the mountain. In the late summer of the same year G. H. Ross reported seeing a pair on a small cliff about three miles north of Bird mountain in the town of Ira. On June 15, 1913, Mr. Kirk and I visited this locality and found that the hawks had downy young. We heard the parent birds long before we were near the nest. As we approached the foot of the cliff they became greatly disturbed and flew over close to our heads. The exact location of the nest was easily determined from the foot of the cliff by "chalk" marks and the aerie proved to be accessible without the aid of ropes. This is the only nest of which I have ever known which could be reached in this manner. Mr. Kirk climbed down from the top of the cliff and found two young about three-quarters grown.

There is a cliff in West Haven, a mile back from Lake Champlain and on or near the game preserve of William Koch, where Mr. Ross and Mr. Kirk have twice seen duck hawks flying about, and the birds no doubt nest there. D. Lewis Dutton reports seeing these hawks at Mount Horrid in Rochester during the nesting season in 1912 and he has heard reports of their being there other years, so that the nesting site is probably a regular one. Joseph A. Wellwood states that duck hawks nest on Mount Equinox in Manchester, and they are said to have occupied a cliff on Mount Haystack in Pawlet many years.

In the fall of 1912 I saw three duck hawks flying about a cliff near Benson, and as I have occasion to drive by the place once in two weeks, it was an easy matter for me to locate the nesting place last spring.

The writer sees no reason why these hawks should not be just as common in other parts of the state, where there are favorable cliffs, as in the vicinity of Rutland. It would be interesting if members of the Vermont Bird Club living in varied localities would visit likely cliffs in their vicinity some time during June or July and report their finds to the club. It is not necessary that the localities should be secluded, and one nest that I know about was only a half mile from a saw mill and farm house.

NOTES ON THE NESTING HABITS OF THE SONG SPARROW

G. WHITTIER FULLER, W. R. Junction

The song sparrow's nest is most frequently found in clumps of grass in meadows, pastures and along the roadsides. Let me illustrate from my record books. Fifty-two nests were located as follows: 20 in clumps of grass or at the base of small trees and in clumps of small bushes; 10 in depressions or dead furrows; 7 in bushes, one to four feet from the ground; 9 in grass at the base of large stones; 1 in large vine; 2 six feet from ground in dense, young trees; 2 near buildings; 1 in hollow log. Fifteen of the above nests were situated near small bodies of water, or swamp-land.

The birds begin building by the first week in May, occasionally much earlier. The nest is a substantial affair, the outer rim of which is loosely formed of grass and rootlets. The inner cup is woven of grass, and is lined with finer grasses, or rarely, hair.

Here is an interesting thing to note: Of the song sparrow nests placed on the ground, the majority will be found to be made up partly of roots; while the greater number of nests which I have found at slight elevations have been wholly composed of grass and weed-stalks. Of the above mentioned nests, thirty-three were observed when the sets were complete: 15 contained 4 eggs each, 12 contained 5 eggs each, 4 contained 6 eggs each, 2 contained 3 eggs each.

The ground color of the eggs ranges from greenish-white to medium grey. The ever present dark brown markings, in spots and splashes, may almost conceal the lighter color. Many examples show the brown sprinkled quite uniformly over the entire shell. The markings always tend to be darkest at the largest end of the egg. A nest I once found contained four eggs, which were nearly free from markings, the latter showing but faintly on the clay-colored shell of the greater end. Such sets are quite rare. The average measurements of the eggs are about 0.80 in length by 0.57 in width.

The first egg is deposited from one to six days after the nest is completed. The remaining eggs are laid at the rate of one a day, or one every two days. The young appear after twelve or fourteen days of incubation, usually all the eggs hatching the same day. The young birds remain in the nest about the same length of time required for incubation, and do not leave the nest, unless disturbed or frightened, until they are ready for their first short flight. A second or third brood may be reared during the summer months, the parents seldom using the old nest for this purpose.

NOTES ON BIRDS

From paper by EDITH M. ESTERBROOK, describing a two months' outing in Newfoundland and Labrador in 1913

One day as we were taking a nine-mile bird walk over to the village of Stephenville (Newfoundland), people who met us on the way invariably remarked on the fine warm weather, although we were walking with our coats on and were none too warm if we sat down anywhere for a moment's rest. We were rewarded with winter wrens and Lincoln sparrows on that walk; and near the hotel crossbills and myrtle warblers were nesting, the former having a wonderful clear ringing note,—peet-a-te-weet-a-te-weet, followed by a flourish of trills.

One pretty walk through the spruce woods led us to the vicinity of a snipe's nest, and we had an opportunity to hear the whinnying of the bird as she circled about high over our heads. Horned larks were there, and the graceful black-backed gulls were constantly seen wheeling high overhead, also the glaucous gull, with its shining white plumage and its mocking "Ha, Ha" occasionally hurled at us from the heights.

On a camping trip up Harry's Brook we saw sapsuckers, a water-thrush, downy and hairy woodpeckers, a black and white creeper and the Hudsonian chickadee. Arrived at St. Johns, we found one of the interesting excursions to take was to Signal Hill, where we ascended the Cabot Memorial Tower and had a magnificent view of the ocean, Cape Spear—the easternmost point of North America, and the beautiful harbor of St. Johns. Here we saw our first pipits and heard their sweet, clear little notes, as they wheeled about overhead.

One day we took an auto stage to Portugal Cave, a primitive little settlement, where we got a fisherman with his sailboat to put us over to Bell Island. As we approached the steep, almost overhanging cliffs, the lovely, velvety guillemots flew about in great numbers and soon we saw that the rocks were swarming with the nesting birds. The white spots in the centre of the wings gave them away; otherwise it would have been almost impossible to detect them as they nestled in some tiny crevice or on some narrow ledge.

We stopped for a day in beautiful Bay of Islands (Labrador) and while walking along the shore from Humbermouth to Curling we were much entertained by two inquisitive alder flycatchers, one of which finally ventured so far as to fly over to my companion and alight on her shoulder, possibly attracted by the color of the red sweater which she wore. The other started toward me, but just before he reached me, wheeled about and retreated, probably frightened by a reflection on my eye-glasses. In a trip through the grand canyons of Humber River, we saw a kingfisher, a solitary loon, a merganser and a duck.

NOTES ON FLORIDA BIRDS

EVALINE DARLING MORGAN, Woodstock

Lake Helen, where we spent last winter, is located about 150 miles south from Jacksonville and 18 miles westward from New Smyrna, which is on the east coast of Florida. The country in this section is diversified by low hills, sandy plains, cypress swamps, scrub palmetto barrens, forests of the majestic Southern pine, and by numerous small lakes and ponds.

In the village of Lake Helen, water oaks, sweet gum, magnolia and camphor trees have been planted, the native pine trees, splendid specimens upwards of a hundred feet in height, have been allowed to

form parks, while flourishing and extensive orange and grape fruit orchards lend on every hand their vivid beauty to the landscape. What wonder that the birds find here ideal conditions.

Of our Northern birds, blue jays are easily the most numerous and there exhibit their wonderful skill in mimicry to a degree not thought of in the North. They mock the mocking birds till even *they* are puzzled, give the identical call notes of the shrike and sparrow hawk, besides possessing original notes and songs that produce varying degrees of pleasure and pain to the listener. Next in point of numbers is the red-headed woodpecker—a bird so beautiful as to always give a thrill of delight—and yet there so common as to evoke no surprise. They spend much of their time working on the big pines where, also, they excavate their nests, one of which I discovered on April 4th with four young birds in it. My attention was attracted to it by the soft, quirring notes of one of the parent birds as he hung outside the hole and looked adoringly within. The hole was not over seven feet from the ground; the excavation for the nest was, probably, a foot and a half in depth.

Flickers, meadow larks, rusty and red-winged blackbirds, grackles, brown thrashers, song and swamp sparrows, solitary vireos, phoebes, robins, hawks, ducks, herons, sandpipers, snipes, kinglets and warblers are commonly seen, each in the environment to which it is adapted.

Characteristically Southern are the mocking birds and cardinals, and no matter how often seen and heard possess a charm ever new and fascinating. The mocking birds begin to sing in February, and by the last of April are in glorious song. On April 28th I found one of their nests with four eggs in it. Loggerhead shrikes that had built near the lake on a scraggy stump were feeding their young at this date. The cardinal's first whistle I heard on March 20th—on April 24th the pair that lived in our garden were building their nest in a nearby orange tree.

Of striking beauty among Southern birds is the red-bellied woodpecker (a name with little significance to the casual observer, since the red of the under parts is so faint as to almost escape notice). It is the brilliant, flame-colored head and neck contrasted with the shining black and white bars of the back that make it so noticeable. The Southern hairy woodpecker has a call that sounds like a weird laugh and so arouses the curiosity of the hearer that this is one of the first birds to be hunted out and identified. In size it is intermediate be-

tween our Northern hairy and the downy, the latter of which is common.

A delightful surprise comes when one chances upon a flock of the dainty ground doves, pigeons less than seven inches in length, but rarely beautiful in dove-gray plumage, coral-red bills, and pink feet. They are fearless and companionable, feeding quietly in gardens and roosting at night in orange trees, from which their soft cooing notes rise and fall in tender cadences. A larger representative of the same family, the mourning dove of the North, is often seen in flocks feeding in waste fields. Florida quail are plentiful and their power of concealment is marvellous. If flushed, they fly, taking to low trees, and sharp, indeed, are the eyes that can detect one after they have alighted. Just so in the grass—at one moment you see ten—twenty—thirty—and lo—they have every one vanished as if by magic.

The Florida wren, similar to the Carolina, though larger and darker, makes the swamps resound with its loud cry of "whee-udel, whee-udel-whee-udel." Difficult is it to locate or to get even a passing glimpse of this restless bird, whose note so persistently calls attention to it. For a long, long time I sought for it in vain, and it was only a few days before my return home that I was finally rewarded by a splendid view of it and its funny, nervous antics. The long-billed marsh wren lives in tall grasses near water holes, and, in similar haunts, the South Maryland yellow throat, or "Palmetto bird" finds a secluded home. The water thrush is frequently seen on the borders of cypress swamps and even within the limits of the village, its dipping motions and streaked yellow under parts making it easy of identification.

At night, besides the humming sound of many insects, comes the soft o o o o o o o o o o of the Southern screech owl, from two to ten voices, answering and echoing, now far, now near, in softest harmony, while perhaps from the very oleander at your door, a voice strikingly bold and human in its enunciation, calls "Chuck-Will's-Widow, Chuck-Will's-Widow, Chuck-Will's-Widow." This Southern representative of our whip-poor-will may sometimes be flushed from his day-time sleeping place—an old stump or log—and then by a hoarse cluck, reveals himself a bigger and brighter brown bird than our own. Not to mention the Florida crow would be a grave omission, since of its tribe it is certainly unique. It looks as if it had never had a square meal in its life and its voice in one complaining rasp testifies to that fact.

It is evident that many birds that winter farther south or in other sections of Florida stop in Lake Helen as a way station on their journey northward. My note book gives the following data: Feb. 20, white-bellied swallow; Feb. 22, purple martins; March 3, tufted titmice; March 5, sparrows in big flocks; March 11, many warblers, robins flying high and calling loudly; March 30, great-crested flycatchers; April 13, yellow-billed cuckoo; April 23, flock of blue birds (the only ones I saw in Florida); April 24, hundreds of warblers, many in song; April 25, summer tanagers.

If it is true that the song of the South Parula warbler ushers in the Florida spring, then it came last year March 11th, a day long to be remembered, since after a thunder-storm at night with a regular deluge of rain, the morning dawned gloriously fair and with it the arrival of many new birds, the Parula and its oft repeated warble among the rest. Previous to this date I had only seen and heard myrtle and pine warblers. Associated with them were kinglets.

On May 1st we turned our footsteps homeward and on May 4th spent a day at the famous old plantation "The Hermitage" in Savannah. There in the giant live oaks, in the deserted gardens among tangled vines and shrubs, in bordered walks that led to the Savannah River, we saw and heard a great number of birds, many evidently migrants, while others were at home in this bird paradise. Orchard orioles were there in great numbers as well as brown thrashers, summer tanagers and cardinals in full song, warblers of many hues and of tantalizing notes, including the yellow-breasted chat, which I saw and heard for the first time, bobolinks, sparrows, and blackbirds, in gay coats and merry outpourings, together made this a scene and a day as bright as they themselves.

BLUE BIRDS

F. H. HART, Rutland

April 6th, 1913, we saw a pair of bluebirds near the house (No. 11 Kendall Ave., Rutland, Vt.) that seemed to be looking for a place to build a nest. The writer made and put up two boxes, one on the southwest corner and one on the northwest corner of the house—upstairs. We did not see the birds again until April 12th, when they were around the house nearly all day, and on the 13th they began a

nest in the box on the southwest corner. We are not sure as to how many young birds there were in this nest, but there were at least four, and they left the nest May 27th, forty-four days from the time the old birds began building the nest.

About a week later the same pair (we are reasonably sure that it was the same pair) began a nest in the other box, on the northwest corner of the house. There were five young birds in this nest, and they left the nest July 17th. Allowing seven days from May 27th, the time that the young birds left the first nest, would make June 3rd the date of beginning the second nest, and the young birds left this nest just forty-four days from June 3rd. Can any club member verify this time record? I wonder if any member has ever noticed a house wren around a bluebirds' nest after the young birds had gone. Two or three days after the young birds left there was one visited both of these nests, seemed to be putting things in order, taking out stray bits of straw and feathers. We thought perhaps they were going to use the nest themselves, but after several visits they went away and we saw no more of them.

HENSLOW'S SPARROW IN VERMONT

GEORGE L. KIRK, Rutland

Until 1912 little was known, as far as the writer can learn, about the occurrence of Henslow's sparrow in Vermont. My acquaintance began on May 18 of that year when, while botanizing with D. Lewis Dutton of Brandon, near his home, we heard a strange sparrow-like song from different parts of two or three adjoining wet fields. The weather was mild and at this time the bird migration was at its height. With the aid of a field glass we determined that the strongly accented two-syllabled song came from the Henslow sparrow and we determined to secure a specimen. The birds, when approached, were averse to flying, and because of their skulking habit Mr. Dutton succeeded in catching one alive with his hands. The specimen was presented to Dr. G. H. Perkins for the State collection at Montpelier. The sparrows in this instance were apparently not paired, and Mr. Dutton tells me that he did not hear the characteristic song again in the vicinity, so that the birds probably did not nest where we found them.

The species probably nests somewhere in the low land of Addison or northern Rutland counties, though, for some time later G. H. Ross of Rutland heard the Henslow sparrow's note in a wet meadow near Leicester Junction, about four miles north of the spot first mentioned.

Twice in 1913 the writer located one of these birds and in each instance there was probably a pair nesting. As the sparrows choose for their summer homes meadows in which there is a dense growth of timothy, if possible, they are very difficult to observe, but their presence may be ascertained by listening for their song, which is continued by the male incessantly until well into July, the hot weather of midday seeming not to put a damper on his enthusiasm.

During the first week in July, 1913, it gave me pleasure to hear the unmistakable see-wick, strongly accented on the last syllable, coming from a dense growth of grass in a very wet meadow near the city of Rutland. Later visits showed that the birds continued to sing until the grass was cut. I never saw them at this place, so expert are they at hiding, and I ceased to hear the song after the hay was removed.

My most unusual record for this bird was made on July 20, 1913, when I heard the song coming from a tiny meadow along the road leading east over the mountain from Wallingford, and at an altitude of about 1,500 feet. It was surprising to hear the notes of this bird of southern distribution mingled with those of the olive-backed thrush and white-throated sparrow on the nesting grounds of these northern breeding birds. The flora in the vicinity was largely that of the Canadian zone.

While I have not made sufficient investigations to say so positively, it is my belief that the Henslow sparrow has been overlooked, like the grasshopper sparrow, and will be found to breed locally in many places in Vermont.

BIRDS OF BENNINGTON AND VICINITY

DR. L. H. ROSS, Bennington

The region covered by this report is that part of the watershed of the Walloomsac River which lies within the State of Vermont. It comprises all of the town of Bennington, together with parts of the towns of Pownal, Stamford, Woodford, Glastenbury and Shaftsbury, which are the six towns grouped in the southwestern corner of the State.

Its extent is 13 miles from north to south and 10 miles from east to west, and covers an area of about 120 square miles—one-fourth of which is mountainous and the rest hilly valleys.

The lay of the land takes the form of an irregularly shaped oblong bowl, with a piece broken out on one side where the Walloomsac River makes its escape into New York, a few rods from the northwest corner of the town of Bennington. The eastern rim of the bowl is made by the Green Mountain range, which extends in a large irregular semi-circle from Glastenbury Mt. on the north, an altitude of 3,764 feet, to the Dome on the south, an altitude of 2,754 feet. On the north, the rim dips down from the Glastenbury Mt. across the height of land separating the watershed of the Walloomsac on the south from that of the Battenkill on the north, only to rise again to an altitude of 2,020 feet on West Mt. From the Dome on the southeast corner, the rim dips down towards the west to Pownal Center and curving around towards the north, rises to an altitude of 2,345 feet on the top of Mt. Anthony, which forms part of the western rim. Between Mt. Anthony and West Mt. the rim is broken out so that all the streams in this bowl finally drain through this point of lowest altitude which is 500 feet above sea-level.

The mountains are thickly covered with trees and scattered through the lowlands are many groups of trees and bushes, so that the whole region is very well wooded. There are no large stretches of level meadow land, but the greater part of the valley is hilly, although there are many swampy places overgrown with grasses, weeds, and bushes which furnish ideal feeding and breeding places for the birds.

Although there are no large rivers nor lakes within this region, still it is very well supplied with water, for there are many springs and small ponds, both natural and artificial, scattered throughout the whole area. Many of these ponds are shallow with muddy, reedy bottoms and are favorite feeding places of the migrating water-birds.

Lake Paran, a small semi-artificial pond of about 30 acres in extent, lying just out of the village of N. Bennington, is a resort for the American Scoter in its fall migrations.

Big Pond, lying in the town of Woodford at an elevation of 2,263 feet, is a favorite resting place for the migrating water birds, and upon its waters have been shot the pied-billed grebe, loon, black duck, American scaup duck, and old squaw. The shores about this pond are fre-

quented, in the breeding season, by the golden-crowned kinglet and various species of warblers.

Benton's Pond, a shallow mill-pond within the village of Bennington, having an island covered with reeds, is a veritable gold-mine for the bird student. Not only do the swimming and the shore birds find in its soft muddy bottom every viand suited to their taste, but the swallows and the flycatchers pick up insects in the air above its surface and the sparrows, vireos and warblers flit in and out among the trees and bushes lining its banks. How great a resort this pond is for the birds can be learned from the fact that of the 176 species of birds observed in the Bennington valley, all but 28 have been seen on or about this little pond, which is less than five acres in area.

So far as I am aware, no other report of the birds of this region has ever been given except the one by Mrs. Elizabeth B. Davenport of Brattleboro, published in Bulletin No. 2 of the Vermont Bird Club. Mrs. Davenport's report covers the two counties, Windham and Bennington, but since she is a resident of Windham County, no doubt most of her observations were made in that county, which may account for the few ways in which her report differs from mine. She includes several water-birds, as the herring gull, wood-duck, canvas back, buffle-head, American golden-eye, coot and kildeer, none of which are to be found in my list. It is not surprising that these birds are to be found along the Connecticut River and not in Bennington, where there are no large rivers. But who can tell why the crested flycatcher, pine grosbeak, American crossbill, Tennessee and mourning warblers are so frequently seen in Windham County and are so rare in Bennington; while on the other hand the red-headed woodpecker, Henslow sparrow, rough-winged swallow, white-eyed vireo, bay-breasted and palm warblers are found more abundantly in the western county? Mrs. Davenport says: "The purple martin is more abundant on the western side of Bennington County, but since the destruction by the long cold rains of 1903 most of the old haunts are still deserted or sparingly occupied." My observations, which began in 1903, support the latter part of her statement, for I have never seen a purple martin in Bennington County.

List of birds seen in Bennington for the years 1903-1913 inclusive. Record kept by Dr. and Mrs. Lucretius H. Ross.

1. Colymbus holboellii—Holboell grebe. Winter visitor. 1904, Feb. 18, seven taken alive; 1910, Jan. 1, one taken alive; 1912, Feb. 12, one taken alive; 1913, March 14, one taken alive.
2. Podilymbus podiceps—Pied-billed grebe. Winter visitor, not very common.
3. Gavia imber—Loon. June, 1906, one adult shot on Big Pond, Woodford; was mounted and is owned privately; 1908, Jan. 14, a young adult captured alive; 1910, Nov. 25, a young adult shot.
4. Gavia lumme—Red-throated loon. 1905, Oct. 28, a young adult taken alive in a door-yard on the main street of the village of Bennington.
5. Uria lomvia—Brunnich murre. 1908, Dec. 16, one killed by boys with stones in a stream just where it flows under the main street of the village of Bennington.
6. Alle alle—Dovekie. One taken alive on the Vt. Soldiers' Home grounds, Bennington, May 31, 1910. It died the following day and is now in the State Museum at Montpelier. This bird was in breeding plumage and Prof. Wells W. Cooke of U. S. Biological Survey says that it is the only reported dovekie in breeding plumage taken in the United States.
7. Sterna hirundo—Common tern. Has been seen only once and then in Bennington, May 30, 1907.
8. Merganser americanus—American merganser. A frequent winter visitor.
9. Anas boschas—Mallard. A winter visitor coming early and staying late.
10. Anas obscura—Black duck. Has been shot once during fall migration.
11. Aythya marila—American scaup duck. Only two identified—one seen in Bennington, Oct. 8, 1905, and one shot in Woodford, Oct. 25, 1911.
12. Harelda hyemalis—Old squaw. Only one identified—an adult male in winter plumage shot in Woodford, Nov. 13, 1911.
13. Oidemia americana—American scoter. Has been shot on Lake Paran, North Bennington, several years during fall migrations. Over 50 were shot on Oct. 14, 1913.
14. Oidemia perspicillata—Surf scoter. Two shot in Pownal, Sept. 23, 1905. Both were mounted and one was placed in the State Museum and the other in the Museum at U. V. M.

15. Branta canadensis—Canada goose. A frequent migrant.
16. Botaurus lentiginosus—American bittern. A summer resident, although only one or two are seen each year.
17. Ardetta exilis—Least bittern. 1903, Aug. 7, one seen on this date and several times afterwards; 1908, May 13, one specimen seen.
18. Ardea herodias—Great blue heron. One or two pairs spend the summer in this vicinity. They have been known to stay as late as the last week in December.
19. Butorides virescens—Green heron. A common summer resident.
20. Nycticorax nycticorax naevius—Black-crowned night heron. 1909, May 23, one seen in Bennington.
21. Rallus elegans—King rail. One spent four weeks during May and June, 1910, on an island in a mill pond in the village of Bennington. His call was heard day and night during his stay, although it was possible only on two or three occasions to drive him out of the rushes so as to be seen. This is the only record of the king rail in Vermont.
22. Rallus virginianus—Virginia rail. 1909, Aug. 12, one seen.
23. Porzana carolina—Sora rail. One shot Nov. 11, 1904, and another shot Sept. 16, 1911.
24. Philohela minor—American woodcock. A common summer resident.
25. Gallinago delicata—Wilson snipe. 1908, Oct. 16, four shot in Shaftsbury.
26. Actrodramas miuntilla—Least sandpiper. 1907, May 22, one seen —had only one leg; 1908, May 22, eight seen in one flock.
27. Calidris arenaria—Sanderling. An injured one captured alive Sept. 25, 1911. It died in a few days and is now in the State Museum.
28. Limosa haemastica—Hudsonian godwit. An injured one captured in Woodford, Sept. 5, 1911.
29. Totanus melanoleucus—Greater yellow-legs. 1909, May 3, one seen in Bennington.
30. Totanus flavipes—Yellow-legs. 1909, Sept. 12, one seen in Bennington.
31. Helodromas solitarius—Solitary sandpiper. Are seen almost yearly both in spring and fall migrations.

32. Bartramia longicauda—Bartramian sandpiper. Summer resident. There are three locations in Bennington where these birds nest every year, usually one pair in each location.
33. Actitis macularia—Spotted sandpiper. A common summer resident found on all streams and ponds.
34. Aegialitis meloda—Piping plover. 1908, Oct. 2, one seen in Bennington.
35. Colinus virginianus—Bob-white. Resident, but probably would not survive many winters if they were not fed. None have been seen for more than a year.
36. Bonasa umbellus—Ruffed grouse. Resident. Became very scarce during 1907 and 1908, due probably to disease, but since then have increased steadily in numbers. They are reported to be very plentiful this year (1913).
37. Zenaidura macroura—Mourning dove. 1906, Sept. 1, three were shot in Shaftsbury, having been mistaken for sharp-shinned hawks. 1911, July 25, one seen in Bennington.
38. Circus hudsonius—Marsh hawk. The most common hawk, but is found only as a summer resident.
39. Accipiter velox—Sharp-shinned hawk. A common summer resident.
40. Accipiter cooperii—Cooper hawk. Resident, from one to five being seen yearly.
41. Accipiter atricapillus—American goshawk. Resident on Bald Mt. in the eastern part of Shaftsbury. Shot now and then.
42. Buteo borealis—Red-tailed hawk. Resident. Rather common.
43. Buteo lineatus—Red-shouldered hawk. Probably a resident, although we have never seen it except in the summer.
44. Buteo platypterus—Broad-winged hawk. Summer resident. Only one or two seen each year.
45. Aquila chrysaetos—Golden eagle. 1911, Oct. 26, one shot in Shaftsbury, l. 3 ft., ext. 6 ft. 10 in., wt. 10¼ lbs. Mounted and is in a private collection.
46. Falco columbarius—Pigeon hawk. Migrant; not common, is occasionally shot and has been taken alive.
47. Falco sparverius—Sparrow hawk. Summer resident; rivals the marsh hawk in being our most common hawk.
48. Pandion haliaetus carolinensis—Osprey. Migrant, three to five seen yearly.

49. Strix pratincola—American barn owl. 1909, Oct. 29, one shot near N. Bennington.
50. Asio wilsonianus—American long-eared owl. 1909, Oct. 29, one shot in Bennington; 1911, Jan. 15, one shot in Shaftsbury.
51. Asio accipitrinus—Short-eared owl. 1910, March 10, one shot in Bennington.
52. Syrnium varium—Barred owl. 1905, one shot in Bennington and one was shot on the dates Jan. 3, 1910; Dec. 2, 1911, and Feb. 3, 1913—all in Bennington.
53. Nyctala acadica—Saw-whet owl. Two were shot on the Vt. Soldiers' Home grounds in Bennington in the summer of 1906, and one was shot on Bald Mt. March 10, 1910. A fourth one was heard in the village of Bennington during Sept., 1913.
54. Megascops asio—Screech owl. A common resident. An unusual thing was noted in regard to this bird on June 4, 1912, and that was one singing at 10:30 A. M.
55. Bubo virginianus—Great horned owl. Common resident. One or more are shot nearly every year.
56. Nyctea nyctea—Snowy owl. One shot in Bennington in 1903. Mounted.
57. Surnia ulula caparoch—American hawk owl. One shot on Bald Mt. in 1903. Mounted.
58. Coccyzus americanus—Yellow-billed cuckoo. Summer resident. Not seen every year—is very rare at the best.
59. Coccyzus erythrophthalmus—Black-billed cuckoo. Summer resident. Much more common than the preceding species, as several are usually seen every year.
60. Ceryle alcyon—Belted kingfisher. Common summer resident. Occasionally winters; remained during the winters of 1904-1905 and 1910-1911.
61. Dryobates villosus—Hairy woodpecker. Resident—not common.
62. Dryobates pubescens medianus—Downy woodpecker. Resident—very common.
63. Sphyrapicus varius—Yellow-bellied sapsucker. Migrant although a few breed in the mountains. Feb. 4, 1912, a young adult was found frozen to death still clinging to the side of a tree.
64. Ceophloeus pileatus—Pileated woodpecker. Resident—rarely seen and then only in the mountains. A male shot in Woodford

in 1907; one found dead Feb. 8, 1909, and one seen April 3, 1910, are the records of all birds seen in 10 years.

65. Melanerpes erythrocephalus—Redheaded woodpecker. Rare summer resident. There are three or four places where they nest each year. One pair remained during the winter of 1911-1912.
66. Colaptes auratus luteus—Northern flicker. Very common summer resident.
67. Autrostomus vociferus—Whip-poor-will. Fairly common summer resident, although they are to be found in only a certain limited section.
68. Chordeiles virginianus—Night hawk. Summer resident.
69. Chaetura pelagica—Chimney swift. Summer resident. Very numerous.
70. Trochilus colubris—Ruby-throated humming bird. Summer resident. Common.
71. Tyrannus tyrannus—King bird. Summer resident. Common.
72. Myiarchus crinitus—Crested flycatcher. Summer resident—never over three seen in any one year, although the bird is seen every year.
73. Sayornis phoebe—Phoebe. Common summer resident.
74. Nuttallornis borealis—Olive-sided flycatcher. Summer resident—rare.
75. Cotopus virens—Wood pewee. Summer resident—common.
76. Empidonax flaviventris—Yellow-billed flycatcher. Migrant probably as the bird is seen only in the spring and fall.
77. Empidonax virescens—Acadian flycatcher. Nested in July 1904. This was the only time it has been observed.
78. Empidonax traillii alnorum—Alder flycatcher. Summer resident —not common.
79. Empidonax minimus—Least flycatcher. Common summer resident.
80. Otocoris alpestris—Horned lark. Probably a winter visitor, as no observation has been made later than March.
81. Otocoris alpestris praticola—Prairie horned lark. Summer resident, breeding on the upland pastures and meadows. Not common.
82. Cyanocitta cristata—Blue jay. Common resident.

83. Corvus corax principalis—Northern raven. One shot in Shaftsbury, Nov. 7, 1909. Mounted and owned by Ira Adams, N. Bennington.
84. Corvus americanus—American crow. Abundant resident.
85. Dolichonyx oryzivorus—Bobolink. Common summer resident.
86. Molothrus ater—Cowbird. Summer resident—not common.
87. Agelaius phoeniceus—Red-winged blackbird. A common summer resident.
88. Sturnella magna—Meadow lark. A common summer resident; occasionally winters—a flock of 12 remained during the winter of 1908-1909.
89. Ictarus spurius—Orchard oriole. Has been observed only once, on May 30, 1905.
90. Icterus galbula—Baltimore oriole. Common summer resident.
91. Scolecophagus carolinus—Rusty blackbird. Migrant. From five to ten are observed every year in spring migrations.
92. Quiscalus quiscula aeneus—Bronzed grackle. A common summer resident.
93. Hesperiphona vespertina—Evening grosbeak. A flock of about 40 spent the month of April, 1909, in and about the village of Bennington. Were first seen April 1, last seen April 18. In 1911 a flock of five were seen on March 27 and for four or five days afterwards. In 1913 a flock of 25 to 30 were first seen Jan. 1st, and were seen many times by many observers on different dates until April 20th.
94. Pinocola enucleator leucura—Pine grosbeak. Winter visitor. A flock of five were first seen Dec. 7, 1903, last seen March 8, 1904. In 1906-1907 a flock of about 20 remained from Dec. 5, 1906, to Feb. 8, 1907. In 1910 and 1911 a flock of about 30 were seen Dec. 2, 1910, and a flock of 11 on Jan. 2, 1911; 1913, Dec. 16, three were seen.
95. Carpodacus purpureus—Purple finch. A common summer resident. A small flock remained during the winter of 1911-1912.
96. Loxia curvirostra minor—American crossbill. Only one bird seen and that one on June 19, 1903.
97. Loxia leucoptera—White-winged crossbill. The only observation was made on Feb. 11, 1909, when five were seen.
98. Acanthis linaria—Redpoll. Winter visitor. Rather irregular in its visitations—some winters none are seen while in other

years flocks numbering in the thousands are frequently observed.

99. Astragalinus tristis—American goldfinch. Common resident.
100. Spinus pinus—Pine siskin. Winter visitor.
101. Passerina nivalis—Snowflake. Winter visitor.
102. Pooecetes gramineus—Vesper sparrow. Common summer resident. Has been seen as late as Dec. 25th.
103. Passerculus sandwichensis savanna—Savanna sparrow. Summer resident.
104. Coturniculus savannarum passerinus—Grasshopper sparrow. Summer resident—not common.
105. Coturniculus henslowii—Henslow sparrow. One pair has nested each summer in a certain locality—a swamp in the southeastern part of the town of Bennington—for the four years, 1909, 1911, 1912, 1913.
106. Zonotrichia leucophrys—White-crowned sparrow. Migrant—not very common; occasionally sings during spring migrations.
107. Zonotrichia albicollis—White-throated sparrow. Summer resident. Breeds almost wholly in the mountains above 1,000 feet altitude.
108. Spizella monticola—Tree sparrow. Winter visitor.
109. Spizella socialis—Chipping sparrow. Summer resident.
110. Spizella pusilla—Field sparrow. Summer resident. This bird has been heard singing at midnight.
111. Junco hyemalis—Slate-colored junco. Summer resident—occasonally winters. Breeds in the mountains, usually above 1,000 feet altitude.
112. Melospiza cinerea melodia—Song sparrow. Summer resident.
113. Melospiza georgiana—Swamp sparrow. Summer resident.
114. Passerella iliaca—Fox sparrow. Migrant.
115. Passer domesticus—English sparrow. Resident.
116. Pipilo erythrophthalmus—Towhee. Summer resident.
117. Zamelodia ludoivciana—Rose-breasted grosbeak. Summer resident—seems to be more abundant during the past five or six years.
118. Cyanospiza cyanea—Indigo bunting. Summer resident.
119. Piranga erythromelas—Scarlet tanager. Summer resident—not common.

120. Petrochelidon lunifrons—Cliff swallow. Common summer resident.
121. Hirundo erythrogaster—Barn swallow. Common summer resident.
122. Iridoprocne bicolor—Tree swallow. Summer resident.
123. Riparia riparia—Bank swallow. Summer resident. Not very common, as there are very few places suitable for nesting.
124. Stelgidopteryx serripennis—Rough-winged swallow. Summer resident—one to three pairs seen yearly.
125. Ampelis garrulus—Bohemian waxwing. Winter visitor, or it might be better to call it a spring visitor, because it is never seen except in the spring. 1904, from March 3 to April 6; 1905, on March 13; 1908, from March 24 to April 7; 1910, April 16, flock of 30; 1911, March 27, flock of 12.
126. Ampelis cedrorum—Cedar waxwing. Summer resident.
127. Lanius borealis—Northern shrike. Winter visitor—not common.
128. Lanius ludovicianus—Loggerhead shrike. Has been observed only three times. 1905, Aug. 20, one seen; 1911, April 2 and 3, same one seen both days; 1913, April 9, one seen.
129. Vireo olivaceus—Red-eyed vireo. Common summer resident.
130. Vireo gilvus—Warbling vireo. Common summer resident.
131. Vireo flavifrons—Yellow-throated vireo. Summer resident.
132. Vireo solitarius—Blue-headed vireo. Summer resident.
133. Vireo noveboracensis—White-eyed vireo. Summer resident, least common of the vireos.
134. Mniotilta varia—Black and white warbler. Summer resident, but nests only in the mountains above 1,500 feet altitude.
135. Helminthophila rubricapilla—Nashville warbler. Summer resident.
136. Helminthopila pegrina—Tennessee warbler. Has been seen only once, on May 11, 1912.
137. Compsothlypis americana—Parula warbler. Summer resident, nesting above 2,000 feet.
138. Dendroica tigrina—Cape May warbler. Has been observed in two years only. In 1912 migration began May 6 and lasted until May 22; 30 to 40 seen and one found dead. In 1913 the migration began May 13 and lasted only a few days.
139. Dendroica aestiva—Yellow warbler. Summer resident—very common.

140. Dendroica caerulescens—Black-throated blue warbler. Summer resident, but has never been found nesting below 1,000 feet.
141. Dendroica coronata—Myrtle warbler. Summer resident.
142. Dendroica maculosa—Magnolia warbler. Summer resident.
143. Dendroica pensylvanica—Chestnut-sided warbler. Summer resident.
144. Dendroica castanea—Bay-breasted warbler. Migrant—passing through during the third week of May.
145. Dendroica striata—Black-poll warbler. Summer resident, but does not breed below 2,000 feet.
146. Dendroica blackburniae—Blackburnian warbler. Summer resident, but like the preceding nest only in the mountains at high altitudes.
147. Dendroica virens—Black-throated warbler. Summer resident.
148. Dendroica vigorsii—Pine warbler. Summer resident—rare; found only in certain places except during migration.
149. Dendroica palmarum—Palm warbler. Migrant—not common. I have never differentiated this from the yellow palm.
150. Seiurus aurocapillus—Oven-bird. Summer resident.
151. Seiurus novebovacensis—Water-thrush. Summer resident—not common.
152. Geothlypis philadelphia—Mourning warbler. Summer resident—rare. It has been found nesting twice.
153. Geothlypis trichas brachidactyla—Northern yellow-throat. Summer resident—common.
154. Icteria virens—Yellow-breasted chat. In 1904 one was seen May 11 and 12; in 1912 a pair nested and reared young. This is the only instance reported of a chat's nesting in Vermont.
155. Wilsonia pusilla—Wilson warbler. Migrant.
156. Wilsonia canadensis—Canadian warbler. Summer resident, but nests only in the mountains.
157. Setophaga ruticilla—American redstart. Summer resident.
158. Mimus polyglottus—Mocking-bird. 1911, one individual seen by two observers on different days (May 7th and 8th).
159. Galeoscoptes carolinensis—Catbird. Summer resident.
160. Toxostoma rufum—Brown thrasher. Summer resident—common.
161. Troglodytes aedon—House wren. One pair has nested in a bird house in South Shaftsbury for several summers; another pair nested in an old oriole's nest in Bennington village, 1912;

other than these two instances only three or four stray individuals have been seen.

162. Olbiorchilus hiemalis—Winter wren. Summer resident.
163. Certhia familiaris americana—Brown creeper. Winter visitor.
164. Sitta carolinensis—White-breasted nuthatch. Resident.
165. Sitta canadensis—Red-breasted nuthatch. Winter visitor.
166. Parus atricapillus—Chickadee. Resident.
167. Parus hudsonicus—Hudsonian chickadee. 1912, Dec. 26, one seen —only record.
168. Regulus satrapa—Golden-crowned kinglet. Summer resident—winters quite a number of years, possibly some winter every year.
169. Regulus calendula—Ruby-crowned kinglet. Migrant.
170. Hylocichla mustelina—Wood thrush. Summer resident.
171. Hylocichla fuscescens—Wilson thrush. Summer resident.
172. Hylocichla ustulata swainsonii—Olive-backed thrush. Summer resident, but nests only at high altitudes. Rare.
173. Hylocichla guttata pallasii—Hermit thrush. Summer resident—common.
174. Merula migratoria—Robin. Summer resident. Has been known to winter several times.
175. Sialia sialis—Bluebird. Summer resident.
176. Sturnus vulgaris—Starling. A flock of about 30 arrived in Bennington Dec. 12, 1913.

POINTERS

It is the desire of the Bird Club to issue its future Bulletins in March. In order to do this papers, reports and notes should be sent to the editor promptly.

Each one reading this issue is requested to do something definite for the 1915 Bulletin.

By buying an extra copy or two of the Bulletin (price 10c. each) and presenting to some library, school or bird lover, the work of the Club may be advertised.

The "section plan" may be made a live issue if every member of a group shows enthusiasm. For "section plan" and "groups" see 1913 Bulletin.

Observations on the song sparrow preparatory to the issuing of a monograph is the definite work assigned to the Club *as a whole* for the coming year. See plan.

Persons receiving this Bulletin who are not already members of the Bird Club may consider it an invitation to join. Names sent to the secretary are voted upon at the Club's two regular meetings. The regular dues of the Club are 50 cents yearly. By paying $10, one may become a life member.

The Summer meeting is to be held in Westhaven (near Rutland) the second week in July.

The design of the pin adopted by the Bird and Botanical Clubs is a three-leaved clover in green enamel with V. B. C. in silver. The price is 65 cents and it may be obtained of Mrs. W. B. Jolly, Berkshire, Vt., or of Mrs. Nellie F. Flynn, 251 So. Willard St., Burlington, either in pins or buttons.

Migration blanks may be obtained of the Secretary. The increased size of the Bulletin makes it imperative that dues be paid promptly. Send to the Treasurer *today.*

It is proposed to bring before the next Legislature the matter of setting aside the State forests as bird and plant reservations. It is hoped that this proposal will call forth united effort on the part of the Bird Club toward its realization.

Many are asking that the 1915 Bulletins of the Botanical and Bird Clubs shall contain pictures of their presidents—Dr. Ezra Brainerd and Dr. G. H. Perkins.

Co-operation is asked on the part of every member of the Vermont State Bird Club in carrying out its work for the coming year.

NOTES

The editor invites every member of the Club to send, at least, *one* contribution to the department of "Notes" for the 1915 Bulletin. By so doing you will help to make this one of its most interesting and valuable features. Please send contributions before the mid-winter meeting.

O. P. Fullam, Westminster, voices an enthusiastic attitude towards the Club in saying, "If you can see any place where I can help the Bird Club, just put me in."

Dr. L. H. Ross, Bennington, visited England in May and June and made observations on birds there. He reports the arrival for the first time in Bennington of a flock of starlings, Dec. 12, 1913.

Miss Anna M. Granger, E. Poultney, saw and heard a winter wren Dec. 25th.

Miss Mabel A. Strong reports a flock of pine grosbeaks in Woodstock the last week in October.

Mrs. Eliza F. Miller, Bethel, reports the following birds that she had not before seen in that section: Evening grosbeak, golden eye, herring gull, American scaup duck, Tennessee warbler (in song), American pipit, screech owl. She contributed an interesting paper on the nesting of the Phil. vireo in Bethel to the joint meeting of the Hartland Nature Club and White River Junction Group, held at Woodstock in September.

Mrs. W. H. Moore, Woodstock, reports seeing an immature white-eyed vireo Sept. 25th in company with young magnolia warblers. The markings about the eye were pale buff instead of bright yellow as in the mature bird.

Mrs. Nelly Hart Woodworth, Tarpon Springs, Fla., reports seeing about 80 specimens, usually, in that region. One Swainson's warbler, many snowy heron, yellow-throated warblers (quite different from the Florida or the Northern yellow-throats), tufted titmice in abundance, thousands of palm warblers with an occasional yellow palm, brown thrashers and cardinals, are the birds mentioned by her.

A lecture on "The Long Trail" by Dr. Louis J. Paris, given at the recent winter meeting was of much interest to members of both Clubs. This trail reaches from Killington to Johnson, an actual distance of 150 miles. The completed trail will extend from Canada to the Massachusetts line, while loops and side trails will form a network of roads leading to points of interest in the Green Mountains. Thus new opportunities for studying rare plants and birds of the State will be afforded.

Miss Alice W. Wilcox of Fairbanks Museum, St. Johnsbury, gave a delightful talk on Habitat Bird Groups, and illustrated it by lantern slides of bird groups photographed in the Natural History Museum, New York.

L. Henry Potter, Clarendon, reports 107 species for his section and about 23,533 individuals, with special observations as follows: "Species common during migration but scarce as summer residents were—white-throated sparrow, night hawk, Canada warbler, Parula warbler, myrtle and Nashville warblers, belted kingfisher. Permanent residents less common in winter were—Red-tailed hawk, goldfinch, crow, white-breasted nuthatch, red-breasted nuthatch, golden crowned kinglet, brown creeper, and red crossbill. An unusual occurrence was a saw-whet owl seen and heard as late as May 20th in Tinmouth, probably breeding. A male red-headed woodpecker was seen on Sept. 7th—this is my first record of the species in Clarendon. A pair of short-billed marsh wrens built their nest in a small marsh near our house in West Clarendon. The nest was found containing seven white eggs. My first Clarendon record."

Mrs. Nora A. Scofield, village of Hyde Park, says: "There is a wooded hill just back of my house and an orchard at its foot. This is a favorite haunt for the birds and during the summer of 1913 I saw sixty different species of birds in the orchard and on the hill." Her record gives 86 species, among them, the evening grosbeak and titlark.

A very interesting and valuable list is furnished by Dr. and Mrs. L. H. Ross, Charles Hitchcock, Mrs. W. H. Bradford, Mrs. T. M. Ayres, Bennington, of 116 species, also a list of 117 species for a series of 7 years by Mr. and Mrs. Geo. M. Miller, Bethel.

Miss Mary E. Jennison, St. Albans, in a list of 52 species records the yellow palm warbler for the first time there.

PRACTICAL BIRD PROTECTION IN ESSEX JUNCTION.—The building of a large dam in Essex Junction last spring brought there several hundred workmen, the greater share of whom were ready to prey upon all bird life. Certain people who were interested to save the birds from their depredations appealed to the State Fish and Game Commissioner, Mr. Titcomb, who promptly aided by having posters of cloth printed in English and Italian with the Vermont laws respecting the protection of birds. These posters were placed in conspicuous places and were most carefully studied by the laborers, as was frequently observed by those having the matter in charge. The county game warden and town warden, dressed in policeman's uniform, ably assisted by posting laws in regard to the restrictions to aliens in carrying firearms and in every way possible saw that the law was obeyed. The fact that the trees on both sides of the river where the dam was built were cut, greatly

diminished the number of birds in that locality, and so helped to remove temptation from their would-be slayers.

Mr. A. E. Tuttle, Bellows Falls, says: "There is one matter that I have thought about long and seriously, a matter which, it seems to me, state and national organizations ought to bring to the attention of the legislative bodies. I believe it to be a fact that more birds are killed every year by cats than by any other one agency. And, inasmuch as there are devices for combating the mice nuisance more effective than cats, and no agencies have yet been devised that are efficient in combating the pest nuisances, it would seem reasonable to me that cats should either be exterminated, licensed, or muzzled, by legislative enactment. If they could be muzzled during the months of June, July and August, I believe that we should very soon see a marked difference in the number of our song birds, and then we should surely see a marked difference in the insect pests that now so seriously menace all forms of vegetation."

The Hudsonian chickadee, or to be scientifically correct, the Acadian chickadee (Penthestes acadicus) was unusually common in the vicinity of Rutland in the late fall of 1913. George L. Kirk writes that he had previously known this bird only from Vermont mountains at an altitude of over 3,500 feet, close to the Hudsonian zone, but there are several records for lower altitudes the past season. A half dozen of the northern species of titmouse were seen with the common chickadees near Rutland at an altitude of 1,000 feet on September 27. In October, Duane E. Kent of Rutland saw the species in East Wallingford near Spectacle Pond. Early in November Mr. Kirk saw them in three places while ascending Mt. Pico, and later in the month he found a dead specimen hanging on a bush in the outskirts of the city of Rutland, where it had been placed by a shrike. This brings the bird down to 600 feet altitude.

Mrs. Cora V. Morrill, Bakersfield, reports that a flock of between 30 and 40 evening grosbeaks visited Bakersfield last year, coming Feb. 18 and remaining until March 9th. "They came to the maple trees on the school lawn every morning, but I never saw them in the village during the afternoon. They were not at all shy and were willing we should admire their beautiful winter dress. So far as we could learn they ate only the maple buds, but the trees apparently were not injured by them. On March 8th the weather moderated and the birds

seemed to appreciate it. They must have been holding a farewell reception for the departing guests, I think, for that morning there gathered in the trees in our door yard, pine and evening grosbeaks, red polls, chickadees, goldfinches, nuthatches, blue jays and English sparrows. Some of the grosbeaks came under the windows, but did not approach the bird table. None of the birds showed any fear of the family who were watching them from the window. The grosbeaks were not seen again after the following day. They awakened a good deal of interest in people who ordinarily do not take much notice of the birds."

LISTS KEPT BY MR. AND MRS. GEORGE M. MILLER OF BETHEL

The hunting ground has been a part of Bethel village, and some of the country within a radius of two miles.

RESIDENTS

1 Ruffed grouse .....
2 Barred owl .....
3 Saw-whet owl .....
4 Screech owl .....
5 Hairy woodpecker .....
6 Downy woodpecker .....
7 Blue jay .....
8 White-breasted nuthatch .....
9 Red-breasted nuthatch .....
10 Black-capped chickadee .....

	1907	1908	1909	1910	1911	1912	1913
11 Loon	....	....	....	....	....	6- 1	1-25
12 Herring gull	....	....	....	....	....	....	3-27
13 Bonaparte gull	....	4-28	....	....	....	....	....
14 American merganser	....	4- 6	....	....	....	4- 1	....
15 American scaup duck.....	....	....	....	....	....	....	4- 4
16 Golden-eye	....	....	....	....	....	....	3-24
17 Canada goose	....	....	....	4- 6	....	10-12	4-13
18 Great blue heron	....	....	....	....	....	8- 4	9- 4
19 Little green heron	....	....	....	5-17	8-24	8- 6	5-21
20 Black-crowned night heron (Young)	....	8-12	9- 4	7-29	7-28	7-18	7- 9
21 Solitary sandpiper	....	....	....	....	7-18	8- 1	....
22 Spotted sandpiper	5- 4	4-29	....	5-11	5- 1	5- 7	4-25
23 Marsh hawk	....	....	8-12	....	....	7-25	....

	1907	1908	1909	1910	1911	1912	1913
24 Sharp-shinned hawk	....	....	....	5- 9	4-23	4-16	....
25 Osprey	5-29	4-27	4-12	4-27	4-26	3-31	....
26 Yellow-billed cuckoo	....	7-12	7- 8	....	5-27	5-26	5-30
27 Black-billed cuckoo	....	6-11	6-23	....	5-24	5-26	5-25
28 Belted kingfisher	4- 3	4-10	4-18	3-30	4-14	4- 7	4-11
29 Yellow-bellied sapsucker	....	4-24	4-12	4- 5	5-14	4-13	5-18
30 Pileated woodpecker	....	6- 4	....	....	....	....	....
31 Flicker	4-26	4-18	4-19	4- 6	4-28	4-27	4-13
32 Whippoorwill	6-20	....	5-23	5-24	....	5-11	....
33 Nighthawk	5-31	5-19	5-14	5-22	5-13	5-12	5-23
34 Chimney swift	5-13	5-12	5- 8	5-16	5- 8	5- 4	5- 4
35 Humming bird	5-23	5-26	5-19	5-12	6-22	5-12	5-15
36 Kingbird	5-15	5-12	5- 7	5-17	5-12	5-12	5- 5
37 Crested flycatcher	....	5-22	5-16	5-21	5-12	5- 5	5-11
38 Phoebe	3-29	3-27	4- 4	3-29	3-31	4- 7	3-27
39 Wood pewee	5-17	5-21	5-29	5-24	5-18	5-20	5-24
40 Alder flycatcher	....	....	....	....	....	6- 1	5-20
41 Least flycatcher	5-10	5- 6	5- 7	5- 5	5- 2	5- 4	4-26
42 Horned lark	....	....	....	....	3- 9	....	3- 3
43 Crow	....	2-28	1-24	2-21	3- 3	1- 6	3- 8
44 Bobolink	5-14	5-13	5-13	5-21	5- 9	5-11	5-18
45 Cowbird	....	....	4-23	4-25	4-10	4-14	4- 7
46 Redwing blackbird	4- 5	4-13	4-19	3-25	3-15	11-16	3-19
47 Meadowlark	....	....	4- 4	....	5-30	5-14	4-26
48 Baltimore oriole	5-14	5-13	5-10	5-14	5-12	5-10	5- 7
49 Rusty blackbird	4- 9	3-29	4-25	4- 5	4-29	4- 3	4- 2
50 Purple grackle	4- 6	3-30	4-14	5- 3.	4- 8	4-17	3-15
51 Evening grosbeak	....	....	....	....	....	....	3-11
52 Pine grosbeak	1- 3	2-18	12- 8	2- 8	2-24	....	3- 2
53 Purple finch	4-29	4-18	4- 7	3-21	4-20	1-11	4- 7
54 American crossbill	....	....	6- 6	9- 2	....	....	....
55 White-winged crossbill	....	....	3- 2	....	....	....	....
56 Redpoll	1- 2	....	1-25	11-14	2- 7	1-20	12-22
57 American goldfinch	5-15	4-26	1-25	3-23	5-12	1-15	1-21
58 Pine siskin	....	10-10	1- 1	....	5-28	1-24	....
59 Snowflake	....	....	....	2- 6	....	2- 2	....
60 Vesper sparrow	4-26	4-19	4- 9	4- 7	4-16	4- 7	4-16

	1907	1908	1909	1910	1911	1912	1913
61 Savanna sparrow	....	....	4-17	4-28	5- 7	5- 5	4-24
62 White-crowned sparrow	5-14	5-12	5-13	5- 8	5-11	5- 8	5-16
63 White-throated sparrow	5-12	4-19	5-10	4-21	4-29	4-14	4-25
64 Tree sparrow	3-25	3-27	1-22	1- 9	3-31	1-15	2-10
65 Chipping sparrow	4-29	4-25	4-23	4-15	4-26	4- 9	4-23
66 Field sparrow	5- 7	4-25	4-19	4- 6	4- 8	4- 9	4-19
67 Junco	3-24	3-27	4- 1	3-20	3-28	3-20	4- 3
68 Song sparrow	3-21	3-26	1-27	1-19	3-29	1- 4	3-20
69 Fox sparrow	4-10	11-6	11-3	....	3-14	4-11	4- 9
70 Rose-breasted grosbeak	5-17	5-17	5-21	5-12	5-12	5-10	5- 8
71 Indigo bunting	6- 7	5-15	5-16	5-17	5-20	5-23	5-21
72 Scarlet tanager	....	6-12	5-23	6-12	5-19	5-18	5-18
73 Cliff swallows	5-23	5- 8	....	....	5- 7	4-27	5- 6
74 Barn swallow	5- 5	5-12	5- 6	5-10	5-13	4-27	5- 9
75 Tree swallow	6- 3	5-13	....	....	....	....	5-20
76 Bank swallow	6- 3	....	5-30	5-22	5-12	5-30	5-20
77 Cedar waxwing	6- 4	4-23	5-26	3-28	4-28	5-19	5-20
78 Northern shrike	....	....	....	2-24	4- 5	11- 1	11- 1
79 Red-eyed vireo	6- 7	5-19	5-20	5-22	5-14	5- 9	5-11
80 Philadelphia vireo	....	....	....	....	....	6-10	5-25
81 Warbling vireo	5- 9	4-27	5- 8	5- 5	5- 6	5- 4	4-26
82 Yellow-throated vireo	5-29	4-26	5-10	5-16	5-12	5- 5	5- 9
83 Blue-headed vireo	....	5- 3	5-20	4-24	4-28	5-10	4-25
84 Black and white warbler	5- 7	4-26	5- 5	5- 7	5- 1	4-29	4-27
85 Nashville warbler	....	8-19	5-20	....	8-23	8-19	8-11
86 Tennessee warbler	....	....	....	....	....	....	5-19
87 Parula warbler	6- 8	5-21	5-13	....	8-19	5- 5	5- 9
88 Cape May warbler	....	....	....	....	....	5- 9	....
89 Yellow warbler	5-16	5-12	5-10	5-11	5-13	5- 3	5- 5
90 Black-throated blue warb.	5-17	6-30	5-13	5-24	6-11	5-19	5-15
91 Myrtle warbler	5-16	4-26	5- 4	4-27	5-14	5- 4	4-24
92 Magnolia warbler	....	4-26	5-20	5-24	5-13	5-10	5-11
93 Chestnut-sided warbler	6- 3	5-15	5-18	5-22	5-13	5- 9	5- 8
94 Blackpoll warbler	6- 7	5-22	5-29	5-21	5-18	5-21	5-25
95 Blackburnian warbler	6- 6	9- 6	5- 7	7- 8	....	5- 7	5-15
96 Black-throated green warb.	5-17	7-23	5-20	5-24	5- 7	5- 5	5-15
97 Palm warbler	....	9-27	9- 3	10- 9	10-15	....	5- 4
98 Ovenbird	5-13	5-12	5-10	5-13	5-13	5- 7	5- 8

	1907	1908	1909	1910	1911	1912	1913
99 Water thrush, Northern...	....	5-14	....	....	5-24	5-21	8-12
100 Mourning warbler	....	7- 8	5-26	....	....	....	....
101 Maryland yellow-throat....	5-13	5-18	5-14	5-20	5-11	5-12	5- 8
102 Wilson warbler	....	....	....	5-27	....	5-26	5-31
103 Canadian warbler	6- 4	5-25	5-22	5-30	5-14	5-19	5-25
104 American redstart	5-17	5-14	5-15	5-22	5- 9	5-12	5- 8
105 American pipit	....	....	....	....	....	....	9-11
106 Catbird	5-17	5-12	5-10	5-21	5-13	5-12	5- 8
107 Brown thrasher	....	....	....	....	....	5- 7	....
108 Winter wren	4-28	....	4-24	....	....	....	9- 7
109 Brown creeper	....	2- 5	2- 3	10-13	10-11	1-18	1- 1
110 Golden crowned kinglet..	4- 2	3-30	4- 9	....	10- 7	3-30	10-23
111 Ruby-crowned kinglet....	....	4-26	4-23	....	10- 2	4-27	4-20
112 Wood thrush	6- 3	5-14	5-13	5-27	6-19	5-12	5-24
113 Wilson thrush	5- 2	5-14	5-11	5-13	5- 7	5- 9	5- 8
114 Olive-backed thrush	....	....	....	....	5-18	5-21	9-23
115 Hermit thrush	4-27	4-24	4-23	4- 6	4-22	4-13	4-16
116 Robin	3-21	3-15	3-27	3-20	3-29	3-20	3-20
117 Bluebird	3-17	3-13	3-17	3-12	3-13	3- 6	3-16

AN ECOLOGICAL STUDY OF THE SONG SPARROW

DR. H. F. PERKINS, University of Vermont

The Hartland Nature Club has undertaken to increase interest in its work by engaging a number of its members in an intensive study of the song sparrow in a definite restricted area. They have requested me to give an outline suggesting how this work may be accomplished. As is necessarily the case in such a preliminary outline, the most important feature is what is left out, rather than what is included. If the outline can be suggestive to the members of the Club who are making a study so that they will formulate their own program, the purpose will be better served than if it were of such a character that it could be followed in detail.

A. APPORTIONING THE PROBLEM

A task of the sort here described can be best accomplished by a comparatively small number of persons, say ten. Each person should be made responsible for a report at the end of the season upon one single phase of the study. While he will be interested in the work

that all are doing, he will pay particular attention to the one part which belongs to him especially.

B. Preliminary Study

As many articles and books as can be found treating of the song sparrow should be procured and parcelled out to the members of the group. The files of bird magazines should be gone through systematically in order to glean all such matter. Make a card index by topics. Have reports read on this preliminary reading at meetings prior to the beginning of the field work.

C. Records

It will be desirable to keep uniform records and they had better be planned in advance to secure uniformity and completeness. Loose leaf note books should be provided by each member. At the close of the work, the leaves may be rearranged without the covers in card index form, guide cards being introduced for separate headings. One point which cannot be too emphatically made is in regard to the danger of not keeping full notes. Considerable practice is necessary and frequent checking by the person in charge through the season is of much importance.

D. Population

The first appearance of the song sparrow, the first nest built, the total population during the nesting season, the beginning of migration in the fall, the last straggler—these should all be carefully recorded. One or two persons will be especially assigned to this task. The other members of the group will be as apt to make the observations, but the careful records should be kept by the person specially designated. With regard to the taking of the census during the height of the season, very careful observation will be necessary. The area may well be sub-divided into portions which are gone over repeatedly by an individual or two, and the work must be thoroughly done, but without alarming the birds any more than is necessary.

E. Nests

A chart or map of the area having been made during the preparations, the location of uneven ground, swamps, large trees, bushes, tall grass, rocks, etc., should be indicated by symbols as in the government topographic maps. The location of each nest is then indicated by a conspicuous symbol, to which a number is appended. These nests

are then assigned to as many members of the group as may be interested to follow their history, and careful records kept somewhat as follows:

(a) Exact location described in full.
(b) Materials used.
(c) Date commenced and date finished.
(d) Eggs laid, date, number.
Add any notes on color and markings, if at all peculiar.
(e) Description of parent birds, which are designated by the number of their nests.
(f) Hatching of eggs.
(g) Date of leaving nest.
(h) Any additional notes on the domestic affairs of this particular establishment.

F. SONGS

If it is possible to go into bird music, it will be found very interesting to make notations of the songs of the different birds. As soon as the nests are under way and the birds distinguishable, the variations in the songs of each bird will probably be found to be very slight, whereas considerable differences will be noticed between the various birds. Compare the songs of the birds in this area with those inhabiting widely different areas, as at seashore, on mountains, etc. Record songs on musical staff, using pitch-pipe or tuning fork to determine pitch. Pitch will be found to vary much more than rhythm. Wide variation in the timbre or quality will appear and notes should be added to indicate this so far as possible.

G. FEEDING

In observing the habits of the birds on the nests, make a few all day observations of favorably located nests from before sunrise to sunset, so as to note the number of visits of male and female and so far as possible the character of the food brought to the nestlings.

The persons assigned to these separate tasks will probably, in some cases at least, wish to change their assignments, but so far as possible, it is important that the same person see the work through to the end.

The location and size of the area are not specified because in the first place I have no data, and in the second place, this outline will be more likely to be useful to other clubs, if local details are omitted. Obviously the selection of the locality is a matter of prime importance, but so is the determination on the part of the members of the group to do the work with the utmost thoroughness of which they are capable.

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